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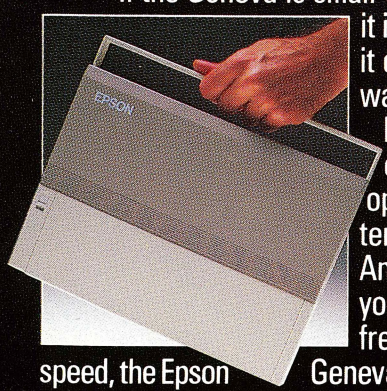

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EPSONCONNECTION

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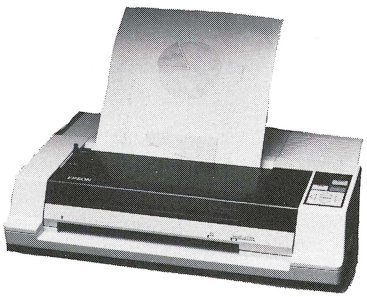

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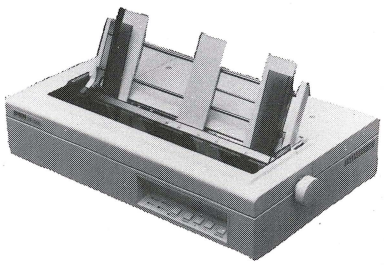

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Staff

THE EPSONCONNECTION

Published By
EpsonConnection Ltd.
1007 Burns
Detroit, MI 48214

Editorial Office:
P.O.Box 14027
Detroit, MI 48214
(313) 822-0090

Editor
Carolyn J. McCarthy

Ass't to the Editor
Christopher Wills

Special Projects Editor
Allen Howell

Portable Computing Editor
Robert A. Hermann

Circulation Manager
William V.J. Andrade

Production
Jo Ann Sind

EpsonNet RBBS/RTPM Coordinator
Ralph Ruh

Editorial Consultants
Ralph Ruh
Franc LaClair
David Crotty
Maryann Whitman

Advertising Office:
P.O.Box 184
Novi, MI 48050
(313) 348-9413

Advertising Manager
Maureen Mertz

Advertising Assistant
Deborah Ratliff

Please allow 2-4 weeks for delivery. Note: The issues are mailed in the same month of the cover date. The EpsonConnection is published monthly by The EpsonConnection Ltd., 1007 Burns, Detroit, MI 48214. **Subscription Rates are:** $24 U.S.A. $30 Canada (U.S.funds) for one year. $38.00 overseas surface mail, (4-6 weeks), $60.00 first class airmail (2-4 weeks) payable in U.S. funds only. The EpsonConnection is circulated internationally to Epson users, owners, dealers, and distributors, with Second Class postage rate pending in Detroit, MI. Please send all inquiries regarding subscriptions, editorial or advertising suggestions, EC-Disk of the Month, Tape of the Month Services, Program info., or User Group Info., to: **EpsonConnection P.O.B. 14027, Detroit, MI 48214.** Send all inquiries regarding advertising to: **The EpsonConnection P.O.B 184, Novi, MI. The EpsonConnection is an entirely independent entity from Epson America and it's Distributors.** Epson, QX-10, Geneva PX-8, QX-16, HX-20 are registered trademarks of Epson Corporation and, TPM, Valdocs, RSI Basic, ValDraw, ValPaint are registered trademarks of Rising Star Industries, Inc. CP/M is a registered trademark of Digital Research, Inc. QXPC-2 is a registered trademark of Titan Technologies Inc., MicroSoft and MS-DOS are trademarks of Microsoft Corporation.

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POSTMASTER: Send address changes to: EpsonConnection P.O.B. 14027, Detroit, MI, 48214.

Editorial

You may have noticed the front cover date reads June-July. Don't panic. We are still monthly, you will receive an issue each month, 12 issues per subscription. This is called a catch-up issue, designed to bring our date ahead. We receive calls each month from subscribers, afraid they have missed their issue.

This should alleviate their worry. How will it work? As an example, let's say the June issue was delivered to the post office on May 31st. From that point, it takes anywhere from two to three weeks to arrive around the U.S. So, your June issue might arrive the last week in June, if you live in Alaska. Your July issue would then be delivered late in the month of July, and we would again have received worried calls. As a result of this maneuver, however, what would have been called your July issue, and arrived late in July will now be called the August issue, and still arrive late in July. Early! Like most other publications. We will extend by one month, the expiration date on all current subscriptions to account for this change.

We have delayed the subscription rate increase until August 1st due to this catch-up issue, and will be offering current subscribers the chance to renew early at the old $24 rate.

VALDOCS 2 AT LAST !!!

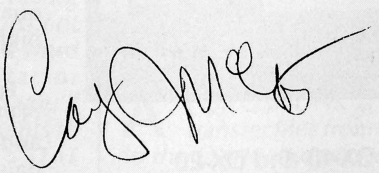
The software has, at long last (has it really been two years?), been formally released. Features promised are now at hand. What next? Of course Rising Star says more versions are forthcoming which will include mailmerge and the ability to bring graphs and spreadsheets into documents. At this moment, let's just hope that all those promising to continue to support the QX-10, will, and that all the promised software for the Geneva PX-8 is released, soon.

We have several tips for Valdocs 2 users in this issue, along with an article looking at word processing and the Valdocs 2 editor.

We have started a new service for portable owners; we will be making 32K ROMS to order. These ROM chips will fit right inside the PX-8 and can be very handy to those who have public domain programs to which they would like instant access.

Next month our focus will be on telecommunications and we will present an article on the extremely powerful Valmail program, which is part of the Valdocs 2 software. We will feature spreadsheets in September, education and games in October, and peripherals in November. If you are interested in contributing articles or user tips, pertinent to these topic areas, let me urge you to do so soon. Your tips and experiences help all of us.

The Epson InterAct sites were quickly booked up, and we are pleased that so many of you took the opportunity to send in cards for early registration. We will be providing notes and pictures on the InterAct happenings next month, along with a report of the annual Consumer Electronics Show in Chicago. Till then, happy computing.



NEWS NOTES

Video Tapes. Drew University has produced some outstanding video tapes. Our user group recently viewed their "Orientation" tapes and they served as an excellent point of departure for valuable discussions. We were able to clear up many misconceptions and provide the kind of helpful resource to each other that user groups are meant to do.

Reduced Prices. EPSON AMERICA, INC. has announced new prices for the following printers: LX-80 ($299), FX-80+ ($499), FX-100+ ($699), LQ1500 ($1295), and the JX-80 ($699). This represents a 10 to 20 per cent reduction effective April.

QX-16 Speed Trials. In our in-house testing of the QX-16, IBM PC, and QX-10 with the Titan card, we found the following results interesting: disk access speed of the QX-16 and the IBM were virtually identical, and as such were twice as fast as the QX-10, with a Titan card; the QX-16 was just a bit faster on internal CPU computations than the IBM PC; the QX-16 screen display was approximately twice as fast as the IBM, and four times as fast as the QX-10, with a Titan card.

Updated Database Program. Brian Lomasky has made some improvements in his Data Base Management Program written for the QX-10. This package was reviewed in the January '85 issue, and since then, the following improvements have been made: all of the program modules have been compiled for faster operation; a new mailmerge module allows you to merge the contents of any database into ASCII text files; there is faster file sorting because it uses the CP/M B RAM disk, and there is a sort function which supports secondary field sorts. The software is available from: Brian Lomasky, 984 Hanover Road, Meriden, CT 06450.

VALDOCS2 TIPS

ASCII to Valdocs 2. If you are planning on storing and retrieving files through the Quirks menu as non-indexed ASCII files, you would be well advised to SET YOUR LEFT MARGIN IN THE EDITOR AT ZERO (0) FIRST. If you use the default margin setting, you will find that retrieving an ASCII file will present various formatting problems.

Ralph Ruh

Time & Date. Press your two CTRL keys simultaneously and watch the date and time alternate while you are in the Editor.

Defkey. Read the article on DEFKEY in this issue. It is a very handy feature of Valdocs 2. In writing letters, I have found it convenient to automate my return address as well as the complimentary close and my name. You can store the keystrokes involved in entering text, doing a return, a tab, space over, and more text. This can be called up in any document with just CTRL and one key stroke - a real time saver.

SemiDisk. Valdocs 2 automatically recognizes the presence of the SemiDisk (see ad page 51), and loads overlay files into the RAM memory on it. Logging into the RAM memory as your data disk when you are doing spreadsheet operations is extremely helpful for speeding things up, however, remember to store the files before leaving it.

Background Mail. This is a new feature which allows you to receive and send mail while in the editor. "Background Mail" is toggled on and off by pressing CTRL MAIL. You will see the letter M appear on the lower right part of your editor screen, indicating that "Background Mail" is activated. When someone calls you, the computer will emit some musical tones to let you know a caller is online.

Mailing Label Fields. When creating mailing labels you will find that the fields are preset at certain sizes. For example, the city field is set to 22 characters. This can limit your ability to place city, state, and zip code on a label in one line. You can use the backspace delete key to make the field smaller.

Mark Jacobson

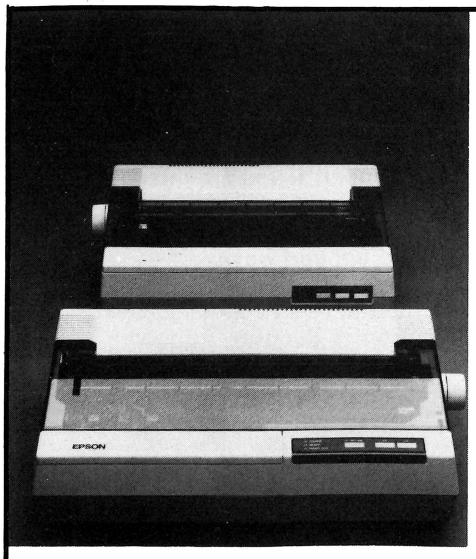
NLQ Board and Valdocs 2. We are repeatedly asked if the NLQ (Near Letter Quality) board, which can be installed inside the FX, FX+, JX, and RX+ printers, is supported by Valdocs 2. The following chart represents the results of our tests with the NLQ board installed into an FX printer with Valdocs 2. The indicated printer choices were tried via the SETUP menu.

NLQ and Valdocs 2 Test

Near Letter Quality (NLQ), Italics (I), Bold (B), Bold Italics (BI), Compressed (C), Expanded Type (E), Subscript and Superscript (S/S), Underline (U)

	NLQ	I	B	BI	C	E	S/S	U
FX80/100/JX80	Advances paper, doesn't work at all							
LQ 1500	-	-	-	-	-	x	x	x
RX-80	x	-	x	-	-	x	-	x
MX-100	x	-	x	-	-	x	-	-
LX-80	x	-	-	-	-	x	x	x
Other	x	-	-	-	-	-	-	-

Selecting correspondence mode in the editor print menu prior to printing eliminated BOLD from the RX and MX outputs.



Epson's DX-10 and DX-20 daisywheel printers

● NEWSFLASH ●

Epson America released the following new printers at the Spring Comdex show.

P-80X Truly Portable Letter-Quality Printer. A 24-pin, 4 pound, thermal printer which operates at 45 CPS (draft mode) and 23 CPS (letter quality mode). $379 retail.

HS-80 LetterJet. The first ever, 4 pound, portable ink jet printer. This sleek printer operated at 160 CPS (draft mode), and 32 CPS (letter quality mode). The LetterJet has built-in rechargeable nickel-cadmium batteries and has 9, ink jet nozzles which output 240 dots per inch. It uses most types of paper, is friction fed and has an optional single sheet feeder. Available in early July at $449 retail.

SQ-2000 Ink Jet Printer This is a high speed, (176 draft mode, 106 letter quality mode) *self cleaning,* ink jet printer. A 24-nozzle printhead provides a high quality, (up to 240 dots per inch) graphics resolution. $2295 retail.

Epson DX-10 and DX-20, 2 Letter Quality Daisywheel Printers. The DX-10 ($399) is an 82-column wide, friction fed printer, with a parallel interface, and a print speed of 10 CPS. The DX-20 ($499) is a 110-column wide, 20 CPS, daisywheel printer with a Diablo All-Purpose-Interface (RS232 C, IEEE-488 and parallel). **Spectrum LX-90** This is an 80-column, 100 CPS (draft mode), dot matrix printer, which uses the Printer Interface Cartridge (PIC) for plug-in compatibility with the IBM PC™, PCjr and the Apple IIc. $389 retail.

Questions & Answers

Q I need a program that would enable me to enter data about an article I have read, then call it up by title, author, source (publication), subject matter, and even by items of interest within the article. Do you know of such a program that you can recommend?

C. L. Brooks
Phoenix, AZ

A *There are several programs available that may suit your application. CITATION, from Eagle Enterprises may be your best bet. Another program called SEEKEASY may be satisfactory also. We have a SEEKEASY demo program that may be downloaded from our BBS on drive C2:. Programs such as Peachtree List Manager, or dBase-II may also be your answer, as these programs can be set up for most database applications. For more information on the CITATION program, contact:*

Eagle Enterprises
2375 Bush Street
San Francisco, CA 94115
(415) 346-1249

Cost is approx. $190.00

Q Is it possible to download MS-DOS programs on to my QX-10?

Charles MacKay
Fogelsville, PA

A *Yes, it is possible to download MS-DOS programs into the QX-10, but if you are operating your QX-10 in the 8-bit mode (CP/M, TPM, Valdocs), then these MS-DOS programs will NOT run on the QX-10 while in the 8-bit mode. If you are downloading text files (letters, etc.) then there should be no problem reading the files. If you are using the QX-PC2 board from Titan, then you can download these programs directly from MS-DOS, provided you have a terminal (modem) program for MS-DOS. If you prefer to (or must) download MS-DOS files while in the 8-bit mode, then a program such as UNIFORM will be required to store the files onto MS-DOS formatted disks.*

Q After downloading the NEWFACE printer setup utility from a local BBS, I tried loading it into MBASIC, since it is a BASIC program. Upon typing MBASIC NEWFACE, the system always responds with the error message "Direct statement in file", thus I cannot get the program to function. I would appreciate information on how to get it to work.

Ray Silvertrust
Evanston, IL

A *The error message that MBASIC is giving you means that there is a line in the program that does not start with a number. All MBASIC program lines MUST start with a line number. If the program was stored as an ASCII file, then it shouldn't be any problem to use an editor such as WordStar, or CP/M's ED.COM to edit the file and remove the defective line. Simply delete the line that does not have a line number at the beginning of the line. The culprit will more than likely be the first or last line in the program. Hope this helps.*

Q What are the requirements and procedures for using a printer with the serial port of the QX-10?

A *You can use the serial port of the QX-10 for connecting a serial printer under the CP/M operating system. At this time, Valdocs does not support a serial printer, but CP/M word processors such as WordStar or Peachtext should work fine. First you'll need to change the port assignments to equal UL1 (this is done via CP/M's STAT program, see your CP/M manual), then set up the serial port for the correct baud rate, parity, stop bits, and protocol. Make sure your software is set up for the right type of printer.*

Q Currently, we are using the Peachtree Spelling Checker which came with our QX-10. Like Valdocs 1.18 and 1.19, it does the job (eventually), but is nothing to write home about, and often the time it takes to go through the ritual doesn't justify the benefit derived. Do you know of any other better spellchecking software to check spelling that can work with Valdocs?

Wilbank J. Roche
Santa Monica, CA

A *Our April '85 issue contains a software review of V-SPELL. It may be just what you are looking for.*

Q Can dBase-III work on the QX-PC2 card?

Anonymous

A *The QX-PC2 will not boot dBase-III version 1.1. I called Titan on March 17 and they told me that version 1.0 will work but that the newer version has a new copy protection scheme that prevents it from booting on the QX-PC2. A word to the wise, if you are thinking of dBase-III: find the old version.*
(Editor's note: This answer was provided by David Huckabee via our RBBS.)

Q Does anyone know if QXFILINK can work with the HX-20?

Stan Countz
Modesta, CA

A *No, QXFILINK is the program to transfer files from the Geneva PX-8 to the QX-10. It does not work with the HX-20, since the HX-20 is not a CP/M machine. A complete article on transferring files between the QX and HX can be found on page 10 of our Nov/Dec '83 issue.*

Letters to the Editor

Dear EpsonConnection,

My state recently passed the "Lemon Law," legislation designed to protect the used car buyer from being ripped off. If only we had a "Lemon Law" for software buyers.

As an owner of Valdocs 1 version (the Edsel of word processing programs) I'd like to sound off to you about why I feel that I've been ripped off.

I bought my Epson QX-10 two years ago in order to start a home word processing company. Valdocs was easy to learn, but once I got past beginner stage I found that it wouldn't do anything sophisticated, let alone what it promised to do. Even Chris Rutkowski has stated that "the first release of Valdocs should never have gone out to the public." (Popular Computing, Feb. 1985)

I struggled, I yelled, I swore through Valdocs 1.16, 1.18, and even 1.18F (I have my own name for this one). I remember one particular evening when, pregnant, and tired of staying up many nights until 2 or 3 a.m. trying in vain to get my margins to line up, my pages to print, or my page numbers not to print, I literally wept into the keyboard. (Luckily, Epson designed it to repel spilled liquids.)

Finally, I overcame my fear of PeachText and I'm just sorry I didn't learn it from the very start. I encourage every unhappy Valdocs owner to try it.

Yes, I feel ripped off. Even without a "Lemon Law" for software, I wonder if anyone has considered legal proceedings in light of Mr. Rutkowski's recent statement (above).

However, the biggest ripoff may be the fact that the EpsonConnection, a publication which espouses to help and educate the Epson user, prints only what glorifies Epson. Why don't you ever print letters or articles which tell the true story - one of false promises and abandonment - and at least give us users, who thirst for a chance to sound off, some "Lemon Aid?"

Sincerely
Lori Willis

Dear Ms. McCarthy,

I am writing to support your loyalty to the QX-10, despite the very frustrating delays in the availability of Valdocs 2.

I am a professor of Russian literature, language, and Slavic folklore, and I have had considerable experience with Valdocs since purchasing my QX-10 in August, 1983. I use it not only for professional correspondence, but for preparing class syllabi, question sheets , and for writing (perhaps too) lengthy articles analyzing short stories of classic Russian authors (Turgenev, Chekhov, etc.).

Let me say that I find Valdocs 1.19 adequate, if not perfect, for scholarly articles up to 30 pages in length. True, it does get slower at the outer limits, but one can always cut the article into text and footnotes; presumably, Version 2 will remedy this mildly troublesome situation. By the way, I always type my drafts in single spaced form; when printing them out, I simply choose double-space as an option. (Does this save diskette space?) In any case, I look forward to the new Version 2, and the possibility of creating my own Cyrillic fonts, as well as those for Slavic languages which use the Latin alphabet.

I was particularly upset by the rather supercilious tone of the reviewer in Popular Computing who apparently could not hold back his cynicism, or unfortunate experience with earlier versions of Valdocs, in favor of recognizing a very good system, especially when compared with the complicated needs of WordStar or other similar programs.

Thanks for the reviews of items advertized in the EpsonConnection; in addition, I would appreciate some honest commentary with regard to the PX-8. I for one am quiet happy with my HX-20, which served me admirably as a research note taker, summarizer, etc., during a three-month research leave in Europe. It was a simple matter to download my microcassette tapes to my QX-10, and edit, rewrite, etc., all the materials I was able to amass. I find the HX-20 and the QX-10 an excellent combination for research, teaching, and many other activities normally undertaken by university professors.

Sincerely
Joseph L. Conrad
Professor

Editor EpsonConnection,

This is in reference to the article To Clean or Not to Clean? by Dr. Robert P. Kusy in your February 1985 issue.

Although someone can accuse me of being biased, I must disagree with Dr. Kusy. The disk drives in the QX-10 are unique. I can make this statement from my direct personal observations and also from the data we (Epson America Service Division) collect from the field. I have been using a QX-10 at home for the past two years practically every night. I have never cleaned the heads, not the air filter, and have never experienced any loss of files ever. And occasionally my cat jumps on the keyboard and sticks its tail in the disk drive.

At Epson America, we make extensive use of our own products so that each of us, managers, non-managers, secretaries, etc., can become more productive. In fact, in the Service Division, practically every employee has a QX-10 on his or her desk with an Epson printer. About a month ago, my secretary reported an occasional disk read error. The fan screen and the heads were cleaned for the first time in around two and a half years, and that solved the problem. And that is the way it goes here in the home office.

Our official recommendation is that the heads should be cleaned every 10-12 months or when you begin to get read/write errors, and then only with a wet type cleaner for not more than 30 seconds per disk. You can tell when the fan screen begins to get clogged up by the warmth of the diskette in drive B or simply by checking the air flow. Of course, if you live in the desert, or if your QX-10 is at a construction site, or if you use cheap diskettes, then the cleaning cycle will have to be adjusted accordingly.

In reference to the requirement for executing a Control M before re-booting a diskette, I would like to point out that this is a principle that all new computer users should learn early on. If you ensure that the program has rewritten the disk directory back onto the diskette (whatever that takes in any system), you will probably never lose any files.

Finally, on removing a disk head, I would like to point out the following information. At 40 tracks per inch, the spacing between each track is only .025 inches. Unless you have alignment equipment and have been trained to perform alignment you should not under any circumstances remove a disk head. If you do, you may not be able to read your old diskettes and may have to have your drive re-aligned at a service center.

Epson Service Rep.

Dear Ms. McCarthy,

Thanks for the article "CP/M BEGINS" in the March issue. Despite reading the manual and other CP/M books, I didn't know where to start in CP/M, now I do. I've made great progress since reading that article.

I was about to give up on EpsonConnection because it was almost all beyond my level. I hope you will continue to have more for us "flatland" beginners (without, of course, ignoring those in the foothills and those on the mountain). Thanks Again

Sincerely
Mrs. Barbara Hiatt

To the Editor,

You might have gone a little further with your article on setting print styles, p46-47 in your April issue.

You mention the very useful OUT command on Peachtext. Here are some of the principal codes you need for the Epson printers:

At the Print backslash, or embedded at the beginning of the text:

OUT 15	will get you	compressed
OUT 77		elite
OUT 27,87,49		expanded
OUT 27,69		emphasized
OUT 27,71		bold
OUT 15,27,83,49,27,65,6		will produce babyface - a very small, compressed horizontally and vertically, type that is excellent for directories, etc.

OUT 27,64 resets the printer.

You can do all these things with the Epson facelift disk, or with MBASIC or course, but it takes a lot longer.

Sincerely
Robert Seymour, Jr.

Editor,

I have read the dual review on Punctuation and Style in the March issue. I am glad to see this program finally getting the exposure it deserves. Unfortunately Bill Cox and the manufacturer are both wrong about the use of Word + with Valdocs.

This program does run under Valdocs, I have been using it for the last two years under 1.18 and 1.19 without any problems. We most recently did a review of this product on EpSource and I will be glad to put it back up as well as make it available to the EpsonConnection BBS for downloading.

The problem that everyone has with Word+ is they try to run it as a CP/M program checking a Valdocs file on a Valdocs disk, forget it. It won't work and you are just flirting with a possible problem with your index. The correct procedure is as follows:

1. Resign yourself to the fact that you are going to lose some space on your VALDOCS data disk. (about 40 pages)
2. Make a new data disk using COPYDISK.
3. Insert the Wordplus diskette in the left hand drive and single copy the following files onto the new data disk.

   a. TW.COM
   b. MAINDICT.CMP
   c. REVIEW.COM
   d. MARKFIX.COM
   e. SPELL.COM
   f. WC.COM (optional file)
   g. LOOKUP.COM (optional file)

Save these files as non-indexed files using the same names. The optional file WC.COM is a handy file which will count the number of words in a document. The optional file LOOKUP.COM can be used to look up the spelling of a word as you are writing a document.

All these files are going to leave about 65 pages for text on your diskette. Now make another data diskette and save the first one you made as a master. This saves time when you have a new data diskette. You just copy the Master and a new data diskette with Wordplus is ready to use.

Use the data diskette as you normally would in Valdocs. When you have a document which needs to be spell checked, use the following procedure:

1. go to MENU of applications.
2. no need to specify drive, just hit return
3. choose TW.COM [RETURN]
4. When Valdocs asks for any commands for the application, enter the NON-INDEXED file number, press return.
5. WORDPLUS will ask you to verify the default settings.
6. Enjoy your new programs.

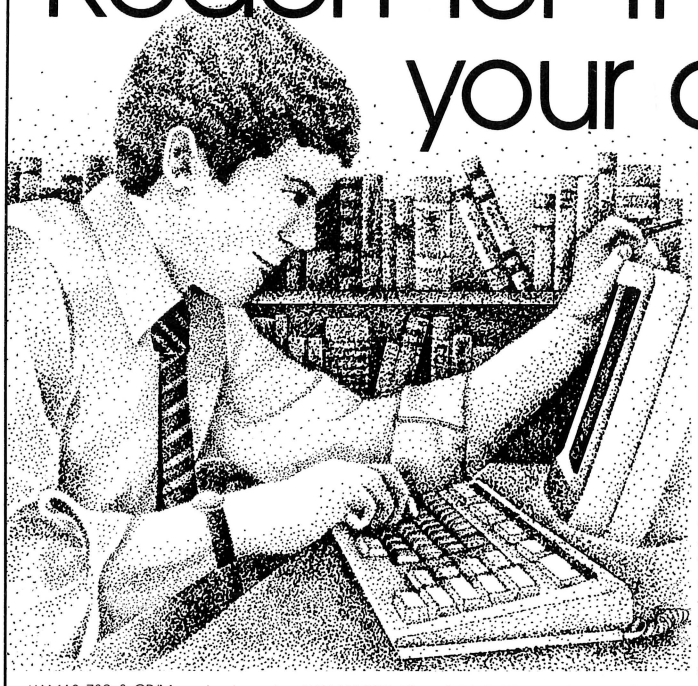
Once the file has been checked you will be dumped back into Valdocs! No disk changing, no mistakes!

The difference between this program and the spellchecker found in PEACHTREE is like comparing the Ford Model "T" with a space shuttle.

One final warning, when you do get VALDOCS 2 the procedure will be different. Your file will have to be saved as an ASCII file for spell checking. This is easily done using the CTRL Q function. WORDPLUS and PUNCTUATION and STYLE will not work with VALDOCS 2 files unless they are saved as ASCII files.

Helpful Valdocs user

Reach for the height of your craft...



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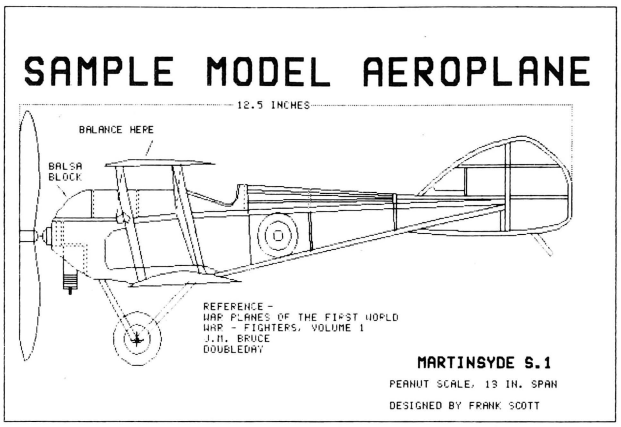
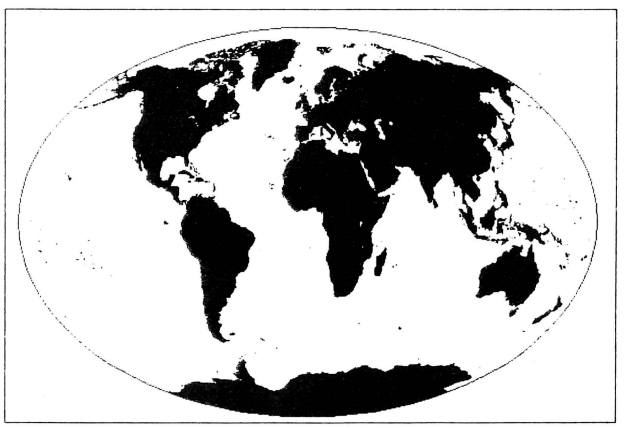
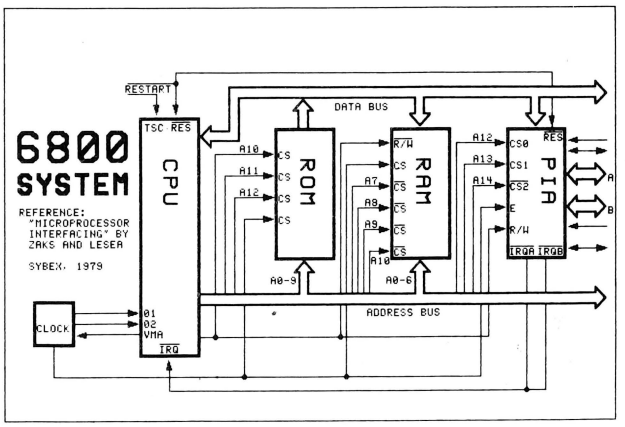
QXDRAW is a powerful graphics design tool that exploits the excellent graphics capabilities of the Epson QX-10. It allows someone unfamiliar with computers to design and draw figures, charts, schematics, or blueprints in no time. QXDRAW has the capability to store, retrieve, and print figures drawn on the screen. In addition, it can fully manipulate figures and text by changing size, angles, and dimensions.







QXDRAW —

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- Prints the screen display on Epson printers.
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This BASIC compiler is one of only a few fully implemented programming languages in its price range. Since it is patterned after straight forward BASIC, most users are already familiar with the commands and pick up MTBASIC quickly. It has the added advantage of being a true compiler, so that programs run fast and stand alone (without the compiler resident on disk). The most sophisticated feature of the program is its multitasking capability — you can have 10 programs (tasks) running simultaneously.

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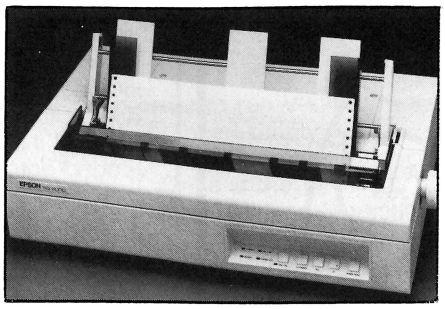

X SQ-2000
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This ink jet printer was developed to meet the demand for soft font printers. It features a twenty-four nozzle, drop on demand ink jet print head capable of placing 240 dots an inch horizontally and 180 dots vertically. It prints bidirectionally, driven by logic seeking firmware. Seven different fonts and a graphics mode are also available.

Epson America, Inc.
Oem Division
23600 Telo Ave.
Torrance, CA 90505

QX QX-10 Tutorial
$14.95

This tutorial on the QX-10 and Valdocs was written by an Epson dealer. Chocked full of tips not easily found in any of the manuals accompanying the computer, the developers give this book away with every QX that they sell.

Magic Cursor Computer Center
402 W. Arrow Highway #6
San Dimas, CA 91773

QX QX-COMPOSER
TPM $39.95

This musical notation editor for the QX makes use of the advanced graphics capabilities of the computer. It allows both amateur and professional musicians to create, edit and print professional-looking musical scores. Functioning like a word processor, it eliminates the tedium of writing music by hand. Features include: what-you-see-is-what-you-get editing, choice of 4 musical formats, free music tutor software and single keystroke entry & deletion of music symbols.

Grossman Productions
1752 Branard Street
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QX Static Buster
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Measuring 2"X3"X1", the Static Buster or static potential equalizer eliminates computer problems associated with static electricity. Specially designed pickups attach to the computers screen and keyboard and a ground wire is appropriately connected. This will supposedly avoid any further problems due to static electricity with memory alteration, program loss, head crashes, and even eye strain caused by dust buildup on display screens.

Advanced Marketing Concepts, Inc
19301 Ventura Boulevard, Ste 200
Tarzana, CA 91356

QX LISP III
TPM $99.95

Lisp is the most popular programming language for AI (Artificial Intelligence) applications such as natural language and expert systems. Future Tech implementation of Lisp (TPM) is developed especially for the QX-10 and the QX-16 and provides over 32,000 "CONS" cells — the primary LISP building block. That is easily enough to create serious applications. Lisp features over 170 major functions, interactive debugging, and full program control of error processing.

Future Tech
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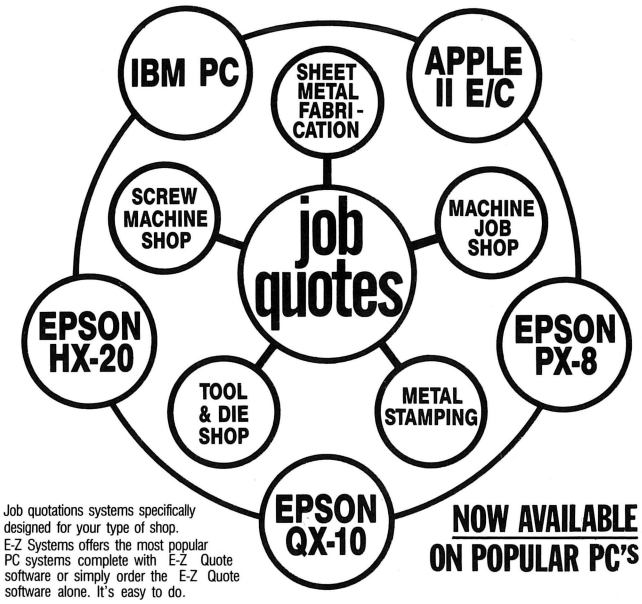

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Tips on Valdocs 2

Common Questions Already Asked:

☐ **Q. What do you do with the Load and Run disks?**

TURN ON YOUR PRINTER FIRST. This will allow the printer setup program to download the proper information to the printer. The Load disk should be put into the left (A) drive, and the data disk in the right (B) drive. Either turn on the computer, or press the reset button if it is already on. After the LOAD disk has loaded data into the QX-10 memory the screen will indicate that you should now insert the RUN-TIME disk into the left drive. **Even though the left drive light is ON, you will remove the left disk and replace it with the RUN disk.** This will load and start you going.

☐ **Q. Why do you have to have TPM3 formatted disks?**

The TPM3 (Valdocs 2) system handles the 0 and 1 system tracks differently than the TPM2 (Valdocs 1 Series) system did. This means that you can't put the new system on top of the old TPM system disks unless you reformat the whole disk first. Another thing you should be aware of is that the new system tracks hold the information to place the time, date, and file information onto your files. If you do not use reformatted data disks the files will not have this information stored. Therefore, it is suggested that you reformat your disks before copying files onto them.

☐ **Q. What about using Valdocs 1 series data disks with Valdocs 2?**

Yes you can, as long as you don't try to put the new TPM3 operating system on it first. The procedure recommended is to run the utility program on the Utilities disk you receive called: IUTIL.SYS and then the editor will automatically convert the file when you retrieve it.

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USER TIP

Instant Summary While Using CP/M B2.25

by Bill Stoebig

While you have your CP/M B2.25 disk booted up, hit the CTRL and HELP keys at the same time and presto, you will get a summary screen of all the current settings, e.g., printer type, serial port settings, etc. Use SETUP.COM to change any of the parameters.

Reprinted from the April issue of the EPUG newsletter by Bill Stoebig.

UPDATE

Using V-SPELL With Valdocs

by Gary Corwin

In response to numerous phone calls referring to V-SPELL and how to use it with Valdocs, I am giving you a set of instructions to create a TPM V-SPELL disk to use with (and out of) Valdocs.

1. Put Valdocs in the left drive and a blank disk in the right disk drive. Turn on the computer.

2. Once the editor appears, hit the <COPYDISK> key and indicate you wish to <C>opy a Disk. It will prompt you to put the proper disks in the two drives. Leave the disks as they are. You want to copy the Valdocs disk onto the new disk.

3. After the copydisk function is complete, return to the Valdocs editor using the <UNDO> key.

4. Once back in the editor press <MENU> and then <E>xit Valdocs to TPM-II. The screen will be cleared and "A>" (or A-Prompt) will appear. Type in the following, so it looks exactly like this on your screen: A>PROT B:*.* <0>

5. When you are returned to the "A>" type in the following, again, so that it looks exactly like this on screen: A>ERA B:*.*

6. You have just "unPROTected" and then ERAsed everything on the right disk EXCEPT FOR THE TPM-II OPERATING SYSTEM!

7. Return to the editor by typing "RESTART". A>RESTART

8. You now have a disk in the right drive with only the TPM operating system on it. Next, using any copy program, such as COPYDISK, or PIP in CP/M, or INDEXER in CP/M version B, copy ALL of the files from the original V-SPELL disk to the "new" TPM disk. (However, don't use any "copy entire disk" commands, as you may write over the TPM operating system that way.) You now have a "Valdocs version" of V-SPELL.

9. Now, in order to run V-SPELL from Valdocs you need simply press <MENU> and then <E>xit Valdocs to TPM-II. Once at the "A>" you can remove the Valdocs system disk from the left drive and insert your new "Valdocs version" of V-SPELL. Suppose you wanted to check the spellings in a Valdocs file which has been given the TPM name of "85424001.VAL". (Note, this is NOT the name you gave it in INDEX, it is the name Valdocs uses to keep track of the file. In this case it was the first file stored on the 24th day of the 4th month in the year 1985.) You can type:

A>VS B:85424001.VAL

When you hit <RETURN> V-SPELL will come up on the screen and you are ready to check your text.

I find that it is less confusing to keep the permanent SETTING in V-SPELL for "Document" at <NONE ENTERED>. That way if I forget to access V-SPELL in the manner above, V-SPELL will prompt me for the name of the file to be checked.

As an added bonus, now that you have a "TPM version" of V-SPELL, you can even "cold boot" (that is, turn on) your machine with V-SPELL in the left drive — and without going into Valdocs you will be given the "A>" of TPM. You can then enter V-SPELL directly. Once back at the A> you could insert Valdocs in your left drive and type "RESTART" if you wanted to go into Valdocs. Now, I hope that takes care of all the calls... whoops! There goes the phone.

* * *

If there are any more questions on V-SPELL, feel free to call me. Also, from what I understand V-SPELL does NOT currently work with Valdocs 2.0 (I was misinformed earlier). However, CompuView, and at least Great Northern Epson, are apparently working to correct this so it will work soon.

Sincerely
Gary Corwin ■

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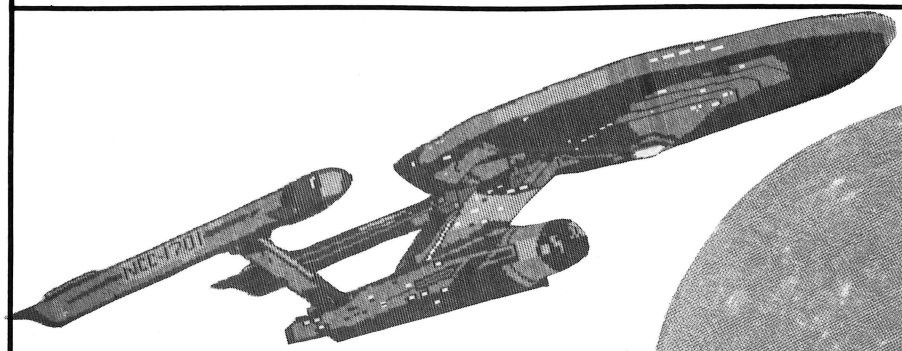
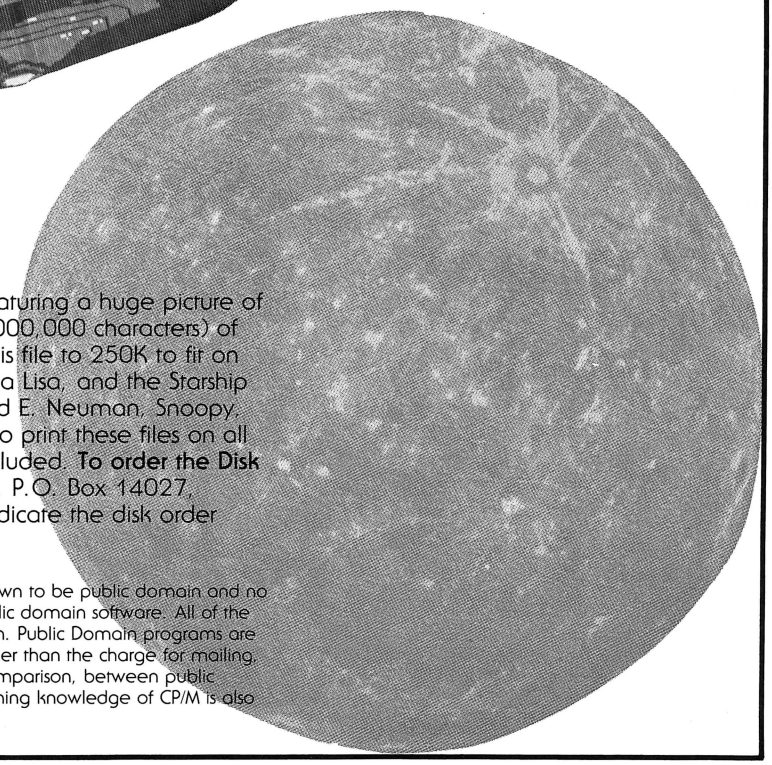
Disk of the Month





EC-11 This month's disk contains printer picture files, featuring a huge picture of our Moon. This picture contains almost 1 megabyte (1,000,000 characters) of disk space. The utility SQUEEZE was used to condense this file to 250K to fit on one flopy disk. Other excellent pictures include the Mona Lisa, and the Starship Enterprise. Some less sophisticated pictures include Alfred E. Neuman, Snoopy, and a Smurf. All necessary documentation and utilities to print these files on all Epson RX, MX, and FX printers (80 or 132 column) is included. **To order the Disk of the Month**, please send $15 to the EpsonConnection, P.O. Box 14027, Detroit, MI 48214, Attn. Disk Service Dept. Be sure to indicate the disk order number (EC-11) with your payment.

Disclaimer: All of the programs and documentation on this disk are known to be public domain and no warranties are expressed or implied. There are no guarantees with public domain software. All of the programs have been tested on the Epson QX-10, and are known to run. Public Domain programs are programs written by other users, for public use at little or no charge, other than the charge for mailing, materials and handling. **Note:** We imply no similarity, or advise any comparison, between public domain software and software that is commercially produced. A beginning knowledge of CP/M is also recommended to utilize this software.

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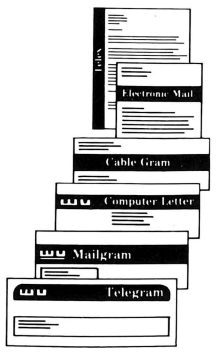

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-all boards 300/1200 Baud unless indicated.
-* indicates 300 Baud only
-H.D. indicates Hard Drive

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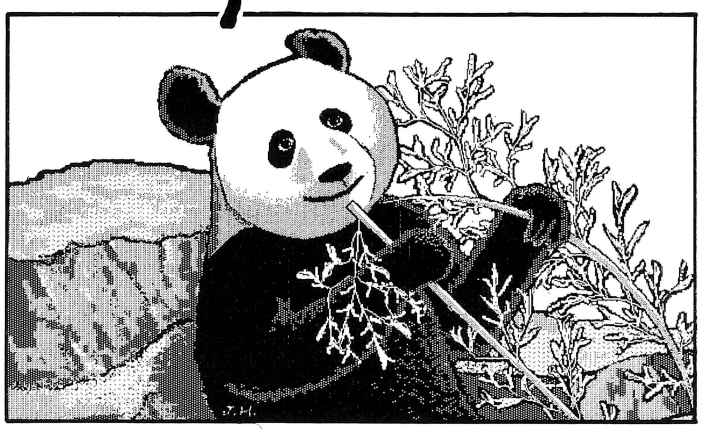
Includes Free Optical Mouse

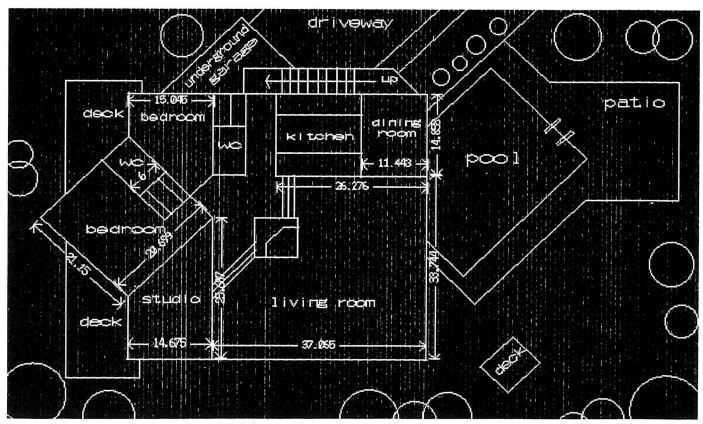
Valpaint



Unleash the Rembrandt in you; the electronic canvas is here. Even if you've never thought of yourself as an artist, Valpaint's versatility and ease of use allow you to create things you never thought were possible. From airbrush sketches to fashion design, from coloring books for your kids to professional electronic paintings, from interior decoration to illustrating your latest book, Valpaint gives you all the tools necessary to create the graphics you want. And Valpaint is as easy to use as Valdocs, which means your children can also use it—for homework assignments, arts and crafts projects, or just exploring their own artistic potential. No electronic paint package on any microcomputer offers you the power and versatility of Valpaint. Here are just a few of the features found in Valpaint:

• Freehand pencil • Eraser • Paintbrush • Airbrush • Record/playback function • Area fill • Geometric shapes • Multiple levels of zoom • Color separation capabilities • 128 colors on Epson machines equipped with color • Outputs to a variety of printers •

VALDRAW



With Valdraw you can quickly and easily design almost anything you want: electrical schematics, rooms, plans, buildings, or landscapes. Simple creation of circles, rectangles, French curves, or arcs makes it easy to create your designs. And the grid overlay option allows you to get accurate scaling. Once you've completed your drawing, you can pass it on to Valpaint for final detailing. Whether you're using it for professional level drafting or just for fun, drawing has never been this easy. And Valdraw has many more features, including:

• Mouse, digitizer, or keyboard interface • 32 levels of zoom • Templates of shapes may be created as single files • • Simple text entry • Automatically scaled dimension lines • • Block rotation • On-screen ruler option for creating scale drawings • Drawings can be edited and merged • • 7 colors available • Multiple printer/plotter support •

Both Valdraw and Valpaint run on Epson Desktop Computers and require Valdocs 2.

In the package, we've included everything you need to get started: Valdraw, Valpaint, two manuals, and a FREE Mouse Systems optical mouse (retail value of $175.00). You can get this entire package at a special introductory price of only $395.00. After the introductory offer, the price for the package will be $495.00.

To order, fill out the form below and mail it with your check or money order. Visa or MasterCard holders may order by calling 213-373-4421. This special introductory price is good only until June 15, 1985. For more information call 213-373-9112. Dealer inquiries invited.

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RISING STAR

EC-6

Please send me _____ copies of Valdraw/Valpaint at ~~$495.00~~ ea.
Special Introductory price until June 15 @ $395.00 ..... *TOTAL* _____
(Calif. Residents add 6½% tax) _____
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-CRIBBAGE-

by Chris Gerard

SPEC SPOT

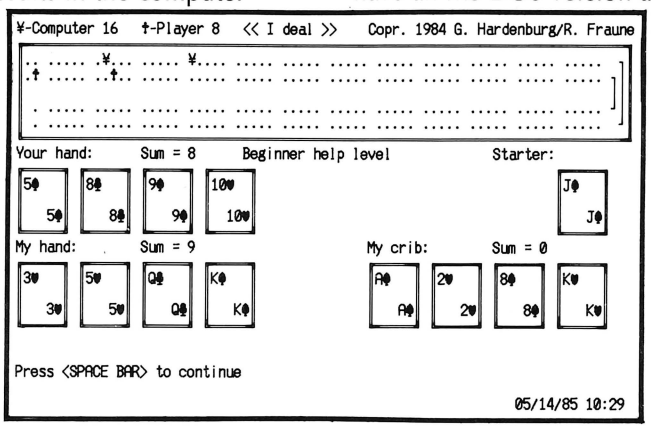
Product: The Cribbage Challenge
Type: Game
Computer: QX-10, QX-16
Operating System: CP/M and MS-DOS
Required Peripherals: Computer; a printer is unnecessary.
Price: $23.95 plus $3.00 shipping.
Ease of Use: Extremely easy to use.
Performance: Excellent.
Documentation: Adequate.
Summary: This is an excellent computer version of the game ofcribbage. The game is played solely against the computer, with a variety of experience and help levels available.
Manufacturer:
Hardenburg Software
P.O. Box 171377
San Diego, CA 92117

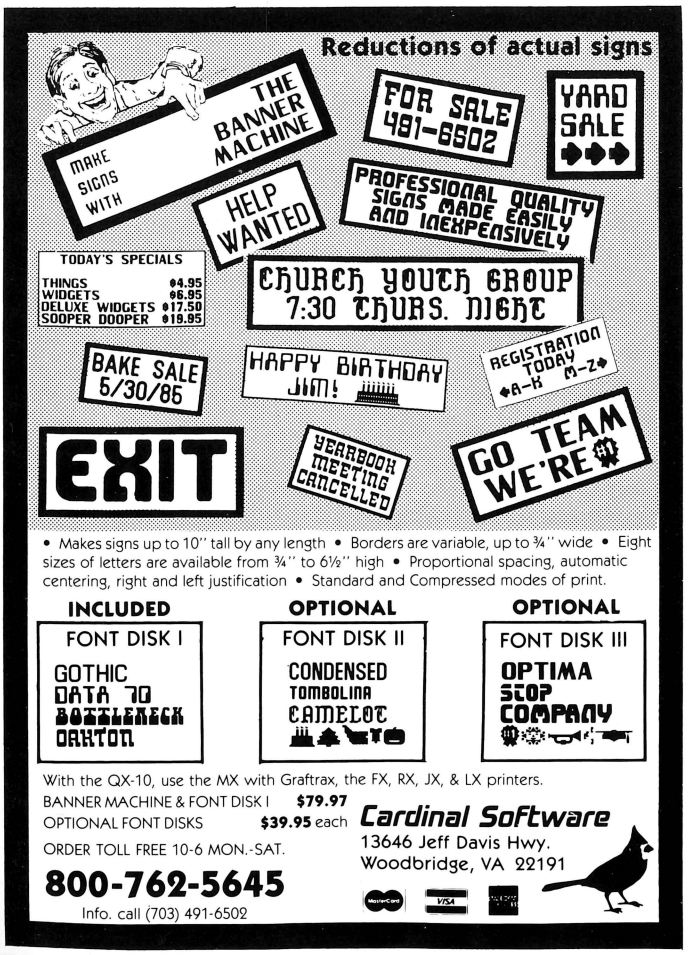
The game of Cribbage has been around for centuries. It is normally played with a single deck of cards, and a scoreboard with 121 holes. Pegs are used to keep score on the board as points are made throughout the play. In this computer version, the cards are represented graphically on the screen and are shuffled and dealt by the computer. When it is your turn to play you select the cards from your hand and indicate the points you have scored. The computer does not let you make a mistake in "pegging" points.

If you have never played cribbage start with the beginner level and select the help options as you play. The computer will *suggest* what cards to play. At the intermediate level you may only ask for help four times, and inputting the wrong point count for your play results in the computer asking you to recount your hand. If you still count incorrectly, then the computer subtracts one point from your score. At the expert level there is no help, and mis-counting your points results in the computer adding them to it's own score, (the equivalent of "muggins" in person to person play.)

In computer games I find I miss the personal interaction of game playing with another person, and the chance that my opponent will make a mistake to my advantage. Aside from these two drawbacks, it certainly is an entertaining way to take a break and keep in practice at the same time.

The game works in TPM II and III, as well as CP/M. The authors also have an MS-DOS version available. ■





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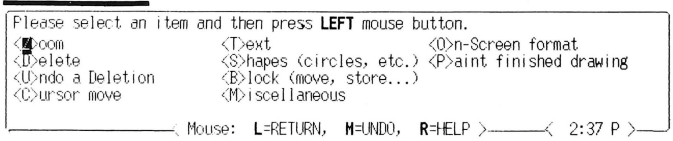
Introducing Valdraw

By Dennis Dreyer

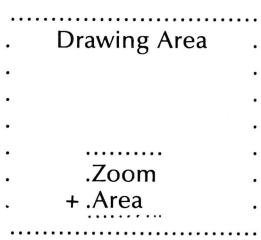
Welcome to the world of VALDRAW. We'll discuss and give an overall view of available menus that you can use in VALDRAW. In further chapters we will deal with each menu in depth. We'll start with the TOOL menu found by pressing the right mouse button from the main drawing screen.

TOOL MENU



<Z>oom - The zoom menu lets you zoom in on a designated section of your picture, with a maximum magnification of 32 levels. The degree of zoom depends on the size of the defined zoom area.

Example:



You put the cursor { + } at the bottom left hand corner of the block that you want to define to zoom in on. Then move the mouse to enlarge the size of the block that you want to work on. NOTE: In any block action you must start your block at the bottom left corner and then block in the area/figure.

The Zoom Menu:

<Z>oom in closer
<R>eturn to full picture (From any level)
<P>an View (Left to right and vice versa)
<G>o to previous view (step back one level)

<D>elete - Places the cursor on the line that you want to delete prior to selecting this option.
<U>ndo - This undoes the <D>elete previously executed.
<C>ursor move - This lets you type in the screen co-ordinates that you want to go to directly.
<T>ext - This menu lets you manipulate text.

The Text Menu:

<E>nter Text - Lets you type in words, place the text anywhere in the drawing, in any size, plus enables rotation of the text.
<D>elete Text - Place your cursor on the text you want to remove and then use this selection.
<A>dd Dimension Line - Enables calculation of dimensions and automatically displays it next to the line drawn.
<S>et Height Dimension - Permits you to define how big to make your text in the dimensioning line.
<T>ext Height - Choose how big you want your text.
<F>ixed Height Text -Sets a selected size for text, so that all of your titles and text remain the same size.

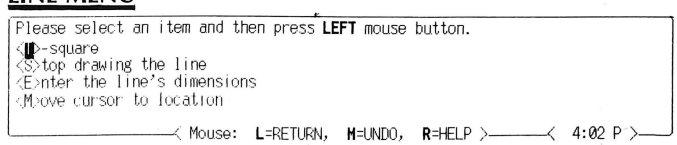
<S>hapes - A menu to let you choose different shapes to place in your drawing.

The Shapes Menu:

<C>ircles
<A>rcs
<R>ectangles
<F>rench Curves - Place your cursor at the point where you want the curve to start, then select this option and make the curve.

<B>locks - A most powerful menu that will be fully explained in future chapters. You can copy, move, rotate, enlarge, shrink, alter proportions, change color, store, and delete blocks of your drawings.
<M>iscellaneous - You can do similar things with VALDRAW as you can in the Editor, e.g. change data disk, erase screen and log in different disk drives.
<O>n-Screen format - Another powerful menu that will be detailed in later chapters. This provides control of the Grid, colors, ruler, gravity, scale and other features.
<P>aint finished drawing - This option will take you and your drawing into ValPaint.

LINE MENU


Please select an item and then press LEFT mouse button.
<T>-square
<S>top drawing the line
<E>nter the line's dimensions
<M>ove cursor to location
Mouse: L=RETURN, M=UNDO, R=HELP
4:02 P

Line Menu, is accessed by pressing the right mouse button during a line drawing operation.

<T>-square - You can square the line with the border depending on the location of the line (horizontal or vertical).
<S>top drawing the line.
<E>nter the line's dimensions.
<M>ove cursor to a location.

In the next article on Valdraw and Valpaint we will discuss each menu and provide drawings for you to refer to. Have FUN!!!

Software Critics Agree

SmartKey II Plus dramatically speeds up and improves accuracy in computing by letting you reduce multiple keystrokes to the touch of a single key. Thousands of practical applications. Available for both CP/M and MSDOS computers. Works to speed up your computing even while operating other software.

SmartKey II Plus Combo Pak $49

—includes SmartPrint II Plus and Screen Smarts

Teach SmartKey to recall software commands, words, paragraphs, or entire pages of data at the touch of a key. Make a series of "smartkeys" out of most of the keys on your Epson. Store "smartkey" definitions in a special file. Call them up whenever you want to run a favorite program or work on a project. Imagine saving complex software command codes, boilerplate paragraphs, inventory numbers, or whatever, and then injecting any of them into your work with the stroke of a key. SmartKey will not interfere with the regular operation of your keyboard. Indeed, SmartKey enhances your keyboard.

The Critics on SmartKey

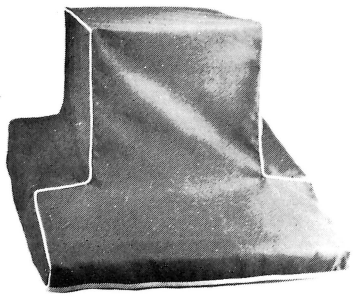
- "Excellent..." InfoWorld
- "Works like a charm..." *MicroSystems*
- "A must for every computer..." Peter McWilliams, author *The Word Processing Book*
- "SmartKey is a utility I recommend... ...The result is less frustration and greater speed and accuracy in entering data." John D. Yoder, PhD *Reviewer — Epson Connection*
- "...SmartKey is considerably easier to learn ...SmartKey would be my choice..." Bob Hermann *Reviewer — Epson Connection*

Central's super priced **$49** *SmartKey II* combo pak includes *SmartPrint II Plus*, a program that greatly enhances the operation of dot matrix printers, and a free copy of Paul Golding's $15.95 book, *Screen Smarts, The Computer Tamer's Guide*. This book tells how you can use SmartKey to turn your computer into a supercharged mean machine. Order today to get this hard hitting $115 software & book combo for only $49.

Introducing A Classic Form Fitting Epson Cover

At last, the classic Epson dust cover you'll be proud to own and use. This first rate computer cover is made from a premium, lint free, static free, washable, free breathing, and fade resistant sailcloth. It comes in a rich looking Navy blue or Sand. The Navy cover has a smart contrasting silver gray piping and trim that adds a superior finished look. Not to be outdone, the Sand cover is handsomely finished in a rich chocolate piping and trim.

Photo: Form-fitting cover over CPU, monitor, and keyboard.



Matching sailcloth covers for all Epson and ComRiter printers: $15.95. Please indicate make and model of printer.
New. Special 2-piece QX-10 cover: $21.95 per set.

For a limited time only, your price for this factory direct, custom made, one-piece sailcloth Quality Cover is $18.95. When ordering remember to indicate color preference. This special low price is subject to change. You must be completely satisfied with your purchase of this cover or we will refund your money immediately. Order today.

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- Easy care fabrics
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- Professional appeal

Richly tailored inside and out. Look inside any of our Quality Covers; see the ultimate finishing; we use machines that sew with 3 needles so that edges will not unravel or shed lint. We stress perfection because you deserve the best. Compare for long-lasting satisfaction.

FACTORY DIRECT

Letter Quality

Say goodbye to correspondence qual
high–resolution, proportionally spa
Font provides fonts in sizes from
Roman, Bold, Italic, Script, Old En
low–cost Epson (MX, RX, FX) and
Font is an easy–to–use software pa
compatible systems; no special hardv

Actual sample produced by an MX-80 and Fancy Font.

Incredible Printing Machine

Your Epson printer is going to get even better. *Fancy Font* can make it into an incredible printing machine. The *Fancy Font System* is a software program that turns the bits and bytes generated by your computer into over 30 font sets in sizes from 8 to 40 points that can be printed on any Epson MX80 with Graftrax, Epson FX or RX printer, or Gemini 10X printer.

Fancy Font styles include Roman, Bold, Italic, Script, Old English, and more. In addition, custom forms, invoices, labels, signs, foreign languages, mathematical notations, view graphs, resumes, newsletters, brochures, complete manuals, invitations, place cards, and high-resolution, proportionally spaced, letter quality business and personal letters can all be printed on your Epson printer with *Fancy Font* at the helm. *Fancy Font* is a product of SoftCraft Inc. You may have seen SoftCraft's national ads. They are printed with *Fancy Font* on an Epson printer. The ad is powerful visual medicine. The list price for the fully documented *Fancy Font System 2.0* is $180. Central's price is only $149. Order *Fancy Font* today and add an amazing sparkle of creativity to all your printed materials. Please indicate name and model of your printer when ordering. *Fancy Font* will make your Epson printer and Valdocs or CP/M word processor come alive. It's magical.

$399 IBM Computer

Turn your Epson into an IBM-type computer for only $399. Titan Technologies' new QX-PC2 is a popular snap-in card that fits into an easy-to-reach slot in your Epson QX-10. The QX-PC2 helps you make your Epson into a rip roaring IBM-type computer within minutes.

"...the QX-PC2 is an inexpensive alternative to trading your QX-10 in on a 'newer' technology. It is a tool that once mastered will expand the QX-10 to a new level of computing. I would be lost without it."
— Jim Markevitch
— *Epson Connection*

QX-PC2 OPTIONS GUIDE

Description	List	Price
192K QXPC2	$ 595.00	$399.00
256K QXPC2	$ 670.00	$499.00
384K QXPC2	$ 895.00	$650.00
512K QXPC2	$1045.00	$799.00
128K Aux	$ 249.00	$199.00
256K Aux	$ 399.00	$329.00
Ram Software	$ 39.00	$ 36.00

Titan

Titan:
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192K	Standard MSDOS co-processor card.
256K	Standard card with more memory.
384K	Standard card and attached memory.
512K	Standard card. Maximum expansion.
128K Aux	128K Auxiliary card adds memory.
256K Aux	Auxiliary card adds memory.
Ram Soft	Ram disk software for card.

— All units fully supported by Titan.
— Complete 12 month factory warranty.

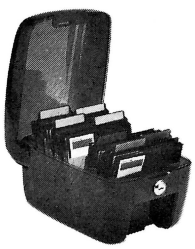
- Simple snap in installation
- Fast 5 MHz processor
- Runs MS-Dos and PC-Dos software
- Support for hard disk
- MS-DOS 2.11 operating system
- Parallel and serial port support

The QX-PC2 co-processor board is an expertly conceived component that contains the guts of an IBM computer. It includes a powerful 16-bit 8088 CPU. Comes standard with a full 192K of Ram, its own built-in memory, and is fully expandable to 512K Ram. Yes, your Epson is now clearly an excellent place to experience 16-bit processing without sacrificing your original investment in an innovative 8-bit computer.

The QX-PC2 lets you operate software that other IBM-emulators can't. The QX-PC2 board lets you use virtually all the software written for the IBM PC including the tough stuff like Lotus 1-2-3, Symphony, dBase III, and Framework. Thousands of dedicated Epson users and corporations have found the QX-PC2 turns an Epson into a whole new exciting computer able to use thousands of IBM-type software programs. You will too.

Don't spend thousands of dollars on an IBM-type computer in a fast changing market when you can get one on a card, plug it into your Epson, and get identical results. It's easy to operate a world of 16-bit IBM-type software on your Epson with the QX-PC2 co-processor. In addition, with the QX-PC2 board in your Epson, you can still operate CP/M and TP/M software. You can't do that on a straight IBM machine. The retail price of Titan's new QX-PC2 card with standard 192K Ram, operating manual, and MS-DOS system disk is $595. Central Computer is proud to add Titan Technologies' products to our line. For a limited time only, Central's low introductory price to the standard QX-PC2 card is $399. Please see the *QX-PC2 Options Guide* above for information on optional features. Order today to begin experiencing IBM-type power on your Epson soon. Central promises to beat any advertised price on this unit. It's time to upgrade that computer. Order today to get the QX-PC2 board fast. In stock, ready for immediate delivery. This offer may not be repeated. Order today.

Lockable Diskette Defender



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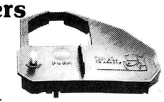
LQ 1500 Users



Compare and save. Epson's LQ 1500 ribbon gives you 3,000,000 characters. Our top quality LQ 1500 ribbon produces 4,500,000 characters. Epson's list price is $17.50 per ribbon. Our price is $49 for box of six ribbons. In stock. Order today. Complete Satisfaction Guaranteed.

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MBasic	**Training software.**	$ 39.95	$ 33.00
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Supplies

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QX-10 User's Guide, Hansen		$ 17.95	$ 15.95
Screen Smarts, Computer Tamer		$ 15.95	$ 12.95

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Computers crunch numbers. It's that simple. If you're not using your computer to manage your money, you're missing a chance to put pencil-sharp accounting skills at your fingertips. Chuck Atkinson's **Quick Check** software program is a home and small business money-manager so easy to use that if you can push a key it will help you computerize your checkbook.

Quick Check tells you exactly where your hard-earned money goes. *Quick Check* lets you set up your own expense and income codes, or use built-in codes, so you can start entering checks and deposits immediately. You don't have to know about accounting to use *Quick Check*. This common sense program gives you instant fingertip access to a wide range of information about your income and expenses. Single keystroke commands help you pay bills, keep track of deductible and non-deductible items, correct mistakes, change dates, and reconcile your checkbook. This program even prints checks and addresses them automatically. *Quick Check* is written in CB80 native code. It is fast, accurate, and forgiving. No slowdown for sorting.

Home and small business accounting can't get any easier than this. Please don't spend another moment thinking about computerizing your checkbook. You can start getting that checkbook in shape now. The list price of *Quick Check* is $95. Central's current price is $79. Order today.

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Now, Epson users can turn their computers into powerful text filing machines. *SuperFile* is a textual matter database manager unlike any other. It puts you in control of your information. It allows you to easily store and retrieve notes, letters, random thoughts, contracts, depositions, invoices, new product information, sales reports, reference articles, scripts, abstracts, bibliographies, customer profiles, photo or slide locations, and much more. *SuperFile* accepts as many as 65,000 entries per database; allows 512,000 keystrokes per record, each of which can have up to 250 keywords; and indexes information you've stored on as many as 255 diskettes per database. Powerful data management.

Input for a *SuperFile* database comes from your word processing Valdocs, CP/M, or MSDOS program, so you can easily include information you already have into a database without having to re-key it. No fancy fields to define. This is a completely free-form database system. No programming language to learn. There's nothing difficult here. You can be up and running within minutes. *SuperFile* uses logical searching procedures to find your information fast. Tell *SuperFile* what information you want, and it searches from 60 to 400 entries per second. Save yourself the time and effort of filing and cross-filing information by hand or in overly structured data fields. The list price of *SuperFile* is $195. Order today to get *SuperFile* at our current low price of $145.

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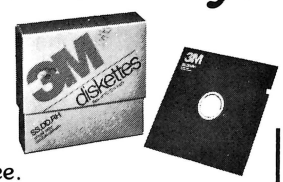

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Creating a Custom Valdocs 2 Editor Disk

by Carolyn McCarthy

This article is aimed at users without a hard disk. Would you like to have the LOAD and RUN booting process of Valdocs 2 all on one disk? You can create customized disks to meet your needs: a single disk for editing, one for the spreadsheet and draw, one for mail and cardfile, etc. When you create a specialized single boot disk it will mean you will have deleted some of the files which make up the complete Valdocs 2 package. If you primarily do one task without much overlap, as I do, then this may be just what you want. The following process describes how to create your own Valdocs2 **custom editor** disk which will both load and run, instead of having to swap disks. This will give you all the files you need for using the Valdocs 2 editor on one disk. There will be some space left on the disk which allows you to add some other programs you like to use. Optional files you might want to consider are: your favorite modem program, a word count program, or any other public domain favorites you use.

Step By Step

Items Needed: QX-10
Valdocs 2 Software
Minimum of 5 blank disks

Preliminary Steps: First make copies of your original Valdocs disks, and place the originals away.

Setup: Load Valdocs 2 (using the normal LOAD/RUN sequence), and press MENU to select the option for <S>etup (which is on your LOAD disk). Go through each of the SETUP options and STORE them when you are done. **Suggestion:** In SETUP, under the Valdocs Systems Characteristics, please select **<D>Menu** as your startup program at this time. This will boot you into the MENU screen rather than directly into the EDITOR. We have used this option for our procedures here.

There are numerous ways to go about creating a custom disk, this is the easiest method we have found for a beginner. We will use RTN throughout to indicate the RETURN (or ENTER) key.

Creating the Custom Disk:

1. Boot up the Valdocs 2 LOAD disk you just prepared. Do not remove it to replace it with the RUN disk at this time, but start with the main MENU.
2. Press the COPYDISK key and make a copy of your SETUP LOAD disk which is currently in the left drive.
3. When the copy is completed remove it from the right drive and label it **Custom Disk V2**, and place this into the left drive and a data disk in the right drive, reset your system.
4. Press the COPYDISK key, until you see the COPYDISK MENU.
5. Select <F>ile copy.
6. At the prompt to enter the source drive type A to look at the A drive and do two returns (RTN, RTN). You should now see:

   -<Drive A: 374K used 2K free>-.

7. Select <D>elete file.
8. In this step you will delete several files to make room for the necessary editor files which will be copied from the RUN disk in a future step.
   Follow the menu prompts and delete the following 7 files:Cardfile.sys, Help2.hlp (see note following prior to deleting this file), Labels.sys, Sched.chn, Sched.tim, Setup.sys, and Version.sys. You should also delete LQ1500.stl and/or FX80.stl if you are not using that particular printer. Note: If you wish to have the HELP files on your custom disk, then DONOT delete them, but instead, delete COPYDISK, to give you enough room for the other files.
9. After these are deleted you should see:

   -<Drive A:2xx K Used 1xxK free>- (xx will depend on whether you also deleted the printer style and help files). Write down how many K are free on A at this time for later use.

10. Remove the DATA disk in the right drive and replace it with the RUN disk.
11. Select <L>ook at and indicate the B drive, RTN, RTN.
12. You will see:

    -<Drive B: 368K used 8K free>-

13. Select <M>ore than one file.
14. Select the following files to copy:
    DEFKEY.SYS
    EDIT.CHN
    EDIT.OVL
    These three files will take up 106K. Subtract 106 from the amount of K free in step 9, and if you have 40K or more still free, and you have a modem and want to have Valmail on your disk, you may copy MAIL.CHN to your Custom disk also.
15. The Destination is A (your custom disk), RTN RTN.
16. <C>opy over it if the same file exists.
17. These files are now copied to your Custom disk.

**18. DISK FULL message. If this appears, press UNDO, you may not be able to have of the files you have selected, and may have to delete one or more.

19. You are now done, remove the CUSTOM disk, and it can be inserted in the A drive and booted. Have fun.

Please Remember: Pressing CALC, SCHED, DRAW, and possibly MAIL will not find these programs on your custom disk, and you will need to insert your copy of the RUN disk to access them.

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for the
Geneva PX-8

Increase the portability of your Epson PX-8 with ROM chips containing the public domain programs you need and use the most. For only $39.50 the EpsonConnection will create a 32K ROM which can be used in the B and C drives of the computer just as Portable WordStar and PortaCalc are. Have programs like MEX.COM (Modem Executive Program), EP44.COM, and BATTERY.COM on a chip where they are instantly available. Configure your own utilities chip with programs like CONFIG.COM, NSWP205.COM, WSDIR.COM, FILINK.COM, UNERA.COM, FINDBAD.COM, SUBMIT.COM, and SSUB.COM. Create a "games" chip with PXTREK.BAS, ASTROP.BAS, and BLACKJAC.BAS. Or put a communications program such as EPX740.COM together with the mini word processor VDO.COM.

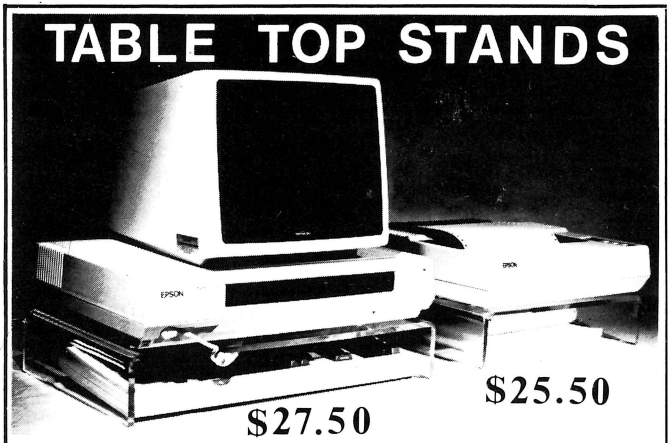
Up to twelve programs totaling 31K (1K required for directory) may be placed on each chip. Send a microcassette with the files YOU desire to have at your immediate disposal and a check for $39.50 to:

The EpsonConnection
ROM Service Department
P.O. 14027
Detroit, MI 48214
313-822-0090

All cassettes will be returned with the ROM.

Or send a self addressed, stamped envelope to the above address for a catalogue of the files available. All chips will be mounted on plastic chip carriers. Hardcopy of documentation for programs is an additional $1.00 per file.

TABLE TOP STANDS



These custom stands for the QX-10 and Epson printers are made of heavy gauge 3/8 inch clear aclylic with polished edges and non-skid feet. The QX-10's keyboard slides underneath when not in use to protect it and free desk space for other uses. Inserting disks is easier and screen is raised to a better viewing height. Sturdy printer stand provides front or rear access to paper and requires no extra desk space. Available for 80 or 100 series printers (add $3.00 for larger model). Order by mail or phone and pay by check, M.O. or C.O.D. Same day shipment and 20 day return policy. Please add $3.00 per unit for shipping and $1.65 for COD's. MD residents add 5% sales tax. Dealer inquiries invited.

MICRO DESIGNS
13408 Harrison Avenue
Ft Washington, MD 20744
(301) 292-5995

If HELP has also been erased, you will have to insert the proper disk (Load or Utilities) for the help files when prompted.

This can be just the beginning of customization, you can create custom Spreadsheet disks, Cardfile and Mail disks, etc.

20. A further step to take if you will be using Valdocs Series 1 Data disks: At this time boot up your CUSTOM DISK in the left drive, with a data disk in the right drive. Press COPYDISK, select <L>ook, and check the amount of K free in A. If you have 56K free, then indicate the source drive B RTN RTN. <F>ile copy IUTIL.MEN, IUTIL.SYS, and VALUTIL.CHN to your A drive (Custom Disk). These files are used by Valdocs 2 to convert Version 1 data disks to Version 2 files.

When done the following files should be on your Custom Disk, and an * appears by files which are determined by your needs:

```
22K *CPYD.CHN - recommended option
14K *DEFKEY.SYS - recommended option
48K  EDIT.CHN
44K  EDIT.OVL
 4K *FX80.STL
30K  GDRIVER.CHN
30K  HASCI.STL
36K *HELP2.HLP
26K  INDX.CHN
58K  INDX.OVL
 2K  INITIAL.INI
 2K  LOADUP.CHN
 6K *LQ1500.STL
36K *MAIL.CHN - recommended for modem owners
10K  MENU.CHN
 2K  RESTART.SYS
26K  SYSINIT.CHN
 4K  TPM.CHN
```

Editors note: Two of my favorite additions to the Custom V2 Editor disk from public domain are: NI.COM a 2K alphabetized directory program and WC.COM a 2K word count program. Where can you get these? Most are available on the Epson user group bulletin boards available for downloading with a modem. ■

Tape of the Month #7

TOM7 contains the program, TOUR. This is an outline processor which is designed to assist you in collecting and organizing your thoughts. It has a multitude of uses including: outlining your writing, project breakdown, desk calendar, software design, and the preparation of an agenda. Due to the size of the program (26K), you will need one of the RAM disks, the Multi-Function Unit, or the PF-10 floppy drive. A hard copy of the 48K documentation file will be included.

PLEASE remember that TOMs and DOMs should be treated like any software you obtain. The FIRST thing you should do when you receive a TOM is to make a backup copy; however, if your only storage medium is on cassette this will prove to be a chore.

ORDERING INFORMATION: To order TOM7, please indicate the tape number on your check for $10.00 and send to: The EpsonConnection, Tape Service Department, P.O. Box 14027, Detroit MI 48214. MasterCharge and Visa orders are now accepted.

GIVE YOUR PRINTER A FACELIFT.™

Your printer manual probably shows a lot of faces that the printer is supposed to print. With lots of complicated instructions you don't have time to learn.

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The FACELIFT Printer Operating System lets you print up to 92 different sizes and styles on the EPSON RX and FX printers, the EPSON MX printers with Graftrax, and any of the EPSON compatible printers, including Okidata, Smith Corona and Star.

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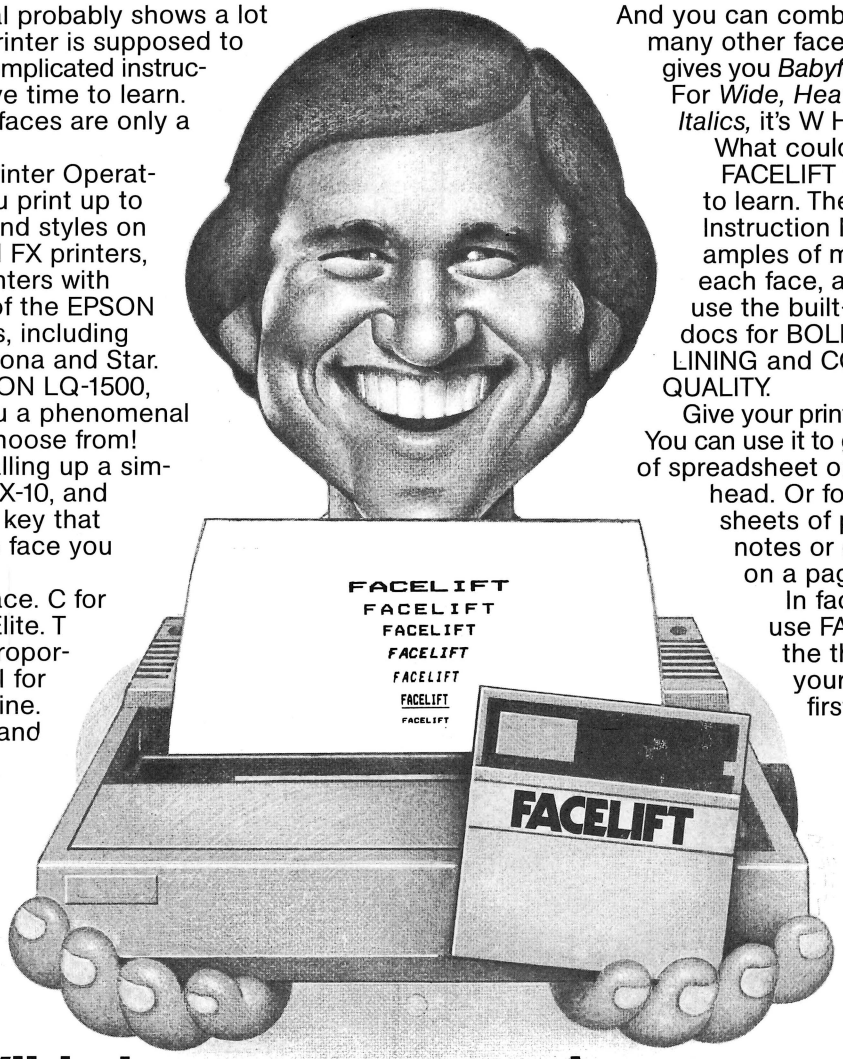

And you can combine the above to get many other faces. For example, B I U gives you *Babyface Italics, Underlined.* For *Wide, Heavy, Doublestrike Italics,* it's W H D I.

What could be simpler?

FACELIFT takes only seconds to learn. The clear, easy-to-read Instruction Manual gives you examples of margin settings for each face, and tells you how to use the built-in commands in Valdocs for BOLD, ITALICS, UNDERLINING and CORRESPONDENCE QUALITY.

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FACELIFT, P.O. BOX 4339, WHITTIER, CA 90607 EC

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"THE TEXT EDITOR"

By Bill Howey

FRAMEWORK · WORD · WORDSTAR 2000 · NEWWORD · VALDOCS 2

On May 6th, 1985, Newsweek magazine proclaimed: "The Dinosaur died because of Comets!" They were wrong. The # 2 pencil and the fountain pen died because of the personal computer revolution. Apple and the less glamorous (but more sophisticated), Atari did more to advance interest in the personal computer on a grand scale than any other product on the market today. Visicalc was available only on the Apple and Atari. You know that success story. Word Processing was still in the domain of the data processing department guru's. Apple Writer and Pie Writer gave text processing to the Apple owners. LJK's Letter Perfect, Spell Perfect and Data Perfect as well as Bank Street Writer brought sophisticated information handling to the Atari. Osborne made things look a little more professional by tapping the CP/M operating system. By this time IBM sat up and took notice before trying to take over the market. Information handling was difficult. Commands were anything but friendly and documentation was written in a strange language resembling Greek to many. Still, it was the wave of the future and everyone wanted to ride it.

Enter Epson Corporation and the band of Merry Christmas Elves at Rising Star Industries. Together they cooked up a formula for ease of use which is yet to be equalled by any other system in production today. The HASCI keyboard combined with a word processing system which could be learned in a matter of minutes without documentation became a reality. The first faltering steps in the evolution of Valdocs gave way to an imperfect but tolerable integrated package which offered Word Processing, Mail, Scheduling and charts. All this in the advanced CP/M environment of TPM. No one else had ever done this before. "What you see is what you get", was virtually unheard of in the market place. Valdocs was a first.

The main flaw in Valdocs was its simplicity. Users became lazy before they had a chance to learn proper habits. They snapped data diskettes in and out of drives faster than the turnstiles rotate in the New York subway at rush hour. Indexes began to crash, "There must be something wrong with the product?" As users became more sophisticated with the use of the text editor, attributes such as Bold, Underline, and Italic were added to documents almost as fast as a person could type. The phosphor screen was being repainted faster than a speeding bullet. Files grew in length. The average letter of one and one half pages nested beside seventy and one hundred page tomes.

Dealers promised, all too often, that the square flat package with the record inside would never fill up. Poor Valdocs began to slow down. Never mind that it was doing things that no one else could do at the time, forget the fact that it was running faster in TPM than anything integrated, available for the IBM-PC under MS-DOS. It did have its weaknesses but nothing that proper operation and care could not cope with.

People who had trouble sending an envelope across town with their signature on a business reply card were suddenly writing about everything in sight. It was fun!

Valdocs still got the brunt of the blame. "WordStar is faster". "Peachtext is better." The list of wants began to grow. Mailmerge, Data base, spelling correction, spreadsheet, were demands that could be heard from the state of Maine to Mexico. Valdocs 2 was promised so long ago that Rip Van Winkle's beard turned gray, or so it seemed. The rumor mill cranked up as the first Alpha test versions arrived in the hands of a chosen few. One newsletter even ran a contest for the most accurate prediction of a release date! Epson announced the QX-16 as being CP/M, TPM, MS-DOS compatible and the rumor mongers had a heyday. "Valdocs 2 would not be released until the QX-16 hit the market," was quoted in hushed corners of user group meetings. The truth was, Epson had to call a halt to the programming of Valdocs so that it could be released. During the last four weeks of programming, RSI was able to perform major surgery on both the editor and spreadsheet, which seemed at times to have a case of "terminal slows." That last manipulation was just what it needed to become respectable in the market place. Epson began shipping Valdocs 2 to its distributors as I was writing this article.

The QX-16 and the enhanced QX-10 open up other possibilities. The MS-DOS environment is rich with fine software which has already withstood the test of time and the whims of the consumer. Some products offer features not found on others. A true comparison is difficult to make because of the emphasis each manufacturer places on a particular function. Even the single purpose programs such as WordStar and its latest clone, NewWord (NewStar Software) have advantages which may be more important to some users than others.

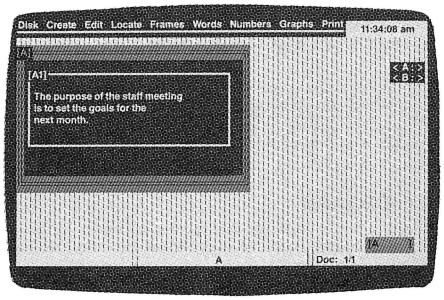
Also keep in mind that speed in the MS-DOS environment of ten to fifteen percent above CP/M - TPM environment is worth the price of admission if the QX-10 /Valdocs system fulfills most of your needs. Copy protection schemes and "PC specific" software may present problems to the QX-10+/16, as is the case with many of the PC clones. Even the IBM PC-AT is having problems with compatibility.

Finally, program overhead must be taken into consideration. The amount of memory required to run a program at its full potential may not be able to be affordable to all. Framework (Ashton Tate) is a good example of this. Here is a program which requires 512K memory. The user is limited to 500 records in the database containing 10 fields each. Finally the days of the single disk program are dead. Disk swapping can only be relieved by a prescription called hard disk.

If you find a program mentioned in this article which interests you, take the time tolearn a little a little more about it. Software dealers will usually allow a hands on demonstration. After that go home and make a list of what you liked and disliked. Let it rest for a few more days, or, better yet, look at what else is available. Remember, you are the one who is going to have to live with your decision.

We will first look at what is available in the MS-DOS environment, examine two offerings under CP/M and finally take a look at Valdocs 2.

FRAMEWORK Version 1.0
Ashton Tate Corp.
10150 W. Washington Blvd. Culver City, CA 90230.


Disk Create Edit Locate Frames Words Numbers Graphs Print
11:34:08 am
[A1]
The purpose of the staff meeting is to set the goals for the next month.
A
Doc: 1/1

This product with its 5 plus pounds of documentation, is one of the most outstanding products on the market today. As the name implies, it uses frames (windows) to contain all of its operations. This apparently seamless program offers spreadsheet, database, graphics communications, wordprocessing and FRED, its own internal programming language. An involved setup program is made painless by batch processing of all of the copy commands. Installation to a hard disk requires about twelve minutes of time as the disks are swapped and loaded. Less time is needed if floppies are going to be used. Framework is not for the faint of heart. It is massive and requires the full 512K of memory and the graphics card found in the QX-16.

The tutorial is thorough but there is so much to this program that a person could get lost in a maze of frames and never see the light of day again unless he knew how to find the road map. Framework is a program which is not going to be learned in fifteen minutes. The best approach would be to work with a single function over a period of time. Learn it thoroughly, then proceed.

Framework runs in a bit mapped graphic mode at all times and does not suffer from slowness of execution as a result. It does not even blink at the extensive use of attributes such as bold, underline, and italics. Most commands are accessed through nine pull-down menus. One of the menu selections allows DOS access and execution from within the frame. If sufficient memory is available most programs and utilities can be executed. Return to the Framework desktop is accomplished by typing EXIT. Execution of DOS Access or movement to other frames is fast and painless.

The spreadsheet is limited to 30 X 50 on the QX-16. It is compatible with Lotus 1-2-3 and Symphony and can be set-up to accommodate just about any other spreadsheet in existence through the FRED programmer. Recalculation is just as fast as the text editor. Framework's database manager currently supports 500 records containing 10 fields each. Both Database manager and spreadsheet support an extensive graphics section. All graphics receive their original data from either the spreadsheet or database. Once the initial information is entered into a graph or chart, the data can be modified, size of chart or graph can be changed or additional charts can be brought to the same screen for viewing or chaining together. It is also possible to size a graph or chart for inclusion in a text file.

Mite, a macro based communications program which supports more protocols than most users have ever heard of, is the link to the outside world. A macro (macroinstruction) refers to a single instruction, or keystroke, that represents a given sequence of instructions, or keystrokes. This very complex program is not currently supported by the Epson QX-16, however all is not lost. Many users have replaced it with the Public Domain program, PC-TALK III, the MODEM 7 of the MS-DOS world.

An extensive, graphically illustrated, help-menu is available at all times at the press of the F1 (HELP) key. The first screen refers to the current operation. It is then possible, through the command menu at the bottom of the screen to view additional help on the same subject or choose other areas of interest.

There are tradeoffs in Framework. Only version 1.0 will work on the Epson QX-16 at the present time, (remember, as of this writing, the

QX-16 was not yet released, this could change by the time this article is in print). The SCROLL-LOCK and CTRL-DOWNLEVEL keys are not properly supported and must be changed in a file called "MACLIB.FW". This is easy to do and can be covered in a future issue if there is enough interest.

The text editor shows some weaknesses. Page breaks do not show on screen if an outline of the document has not been written. The maximum number of pages which can be contained in any one frame is limited to twelve. This is a mixed blessing. Since everything is held in memory until saved, the maximum that could be lost in the event of a power failure is 12 pages. This forces the user to learn new habits. Save the file to disk frequently. If more than 134K of documents, spreadsheets etc., is brought to the desktop, a polite message informs you that there is insufficient memory.

Documentation is good and well organized. A fair, if not somewhat corny, tutorial makes a full blown spy out of you! For the business manager who wants fast computing power, has the time and patience to learn how to build macros, as well as all of the other tricks needed and in fact encouraged by Framework, the price of $695 may not be too steep.

WORDSTAR 2000+
MicroPro International Corporation
33 San Pablo Ave. San Rafael Ca. 94903

Mention the name WordStar at any user group meeting and you will find a clean division right down the middle; those that hate it, those that love it, nothing in between. MicroPro wisely has done little to modify the original Vanilla WordStar but they have brought a new product to the market, "WordStar 2000." This product, all dressed up in color, (if you have the monitor), is similar to but nothing like its older brother. The similarities are enough to lull an old WordStar user into using those infamous dot and control codes to find his commands being totally ignored. New users will delight in the fact that the control codes now make sense. This is a much improved and friendlier product which can be understood (to a degree sufficient to write a letter), in fifteen minutes by a new user. This is an integrated product which features the much improved CorrectStar spelling checker and MailMerge. If the 2000+ package is purchased, Telemerge, a modem program (not currently compatible with the QX-16), MailList and StarIndex are added to the program.

Over 100 printers are supported in the setup program, with formatting support available when a file is created. Several page formats including a pre-designed memo, ragged right, justified text, proportional spacing (not currently supported for dot matrix printers), document mode for manuscripts requiring double spacing and finally unformatted for data listing. Additional custom formats can be designed with ease.

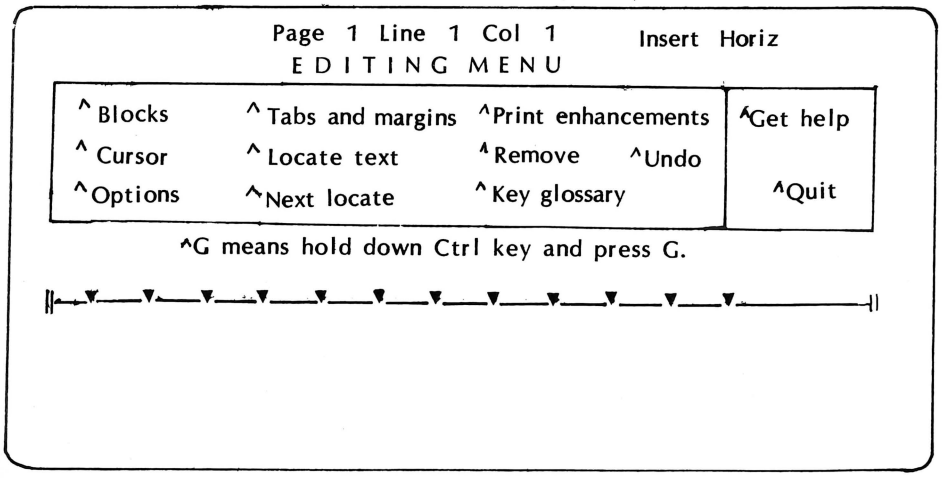
Up to three windows may be opened at any one time, each one holding a different document, or two may be used for editing different parts of the same document.

WordStar 2000 runs well on the QX-16, with a slight increase in speed over the IBM-PC XT, as long as the configuration (a hard disk such as the Comrex Comfiler is installed) is the same. Floppy disk response time is agonizingly slow.

Installation is fast as long as the well written installation guide and "Getting Started" are read first. There are a few installation quirks for the Epson QX-16 which will be looked at in depth in a future article. Color setup is somewhat clumsy. The default colors are hard on the eyes so it is necessary to go into setup to reassign the values which are most pleasing to the user. It would have made more sense if this could be accessed from the program menu.

Correctstar is easy to use. Out of place letters which would make a word almost unrecognizable for any other spelling checker are no problem for this spelling detective. It may miss on the first pass, but a request for a second spelling usually uncovers the errant letters. CorrectStar can be used at any time during the writing process to look up a single word, check a paragraph or the entire document. If it is necessary to type in a correction, that correction will be checked again by CorrectStar. Unlike many spelling checkers on the market today, CorrectStar will look at two letter words and recognize, in many cases, a transposition of letters.

Macros are supported for single keystroke entry of up to 560 characters. This is not meant to compete with the MailMerge function but does allow the insertion of repetitive text quickly. Since WordStar 2000 does not rely on bit mapped graphics, "What you see is what you get", is not supported. Most of the print enhancements such as bold, underline (true underlining), italic,subscript and superscript, are represented by changing the color of the text, underlining or brighter intensity.



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DEALERS INQUIRES INVITED

The tutorial is the biggest disappointment. The length of time required just to change screens on the front end runs from 30 seconds to five minutes. This is unacceptable but I suspect unique to the QX-16.

WordStar 2000+ is not the fastest nor the most flashy. It is a solid text processor with most of the whistles and bells. It lacks graphics, true "what you see is what you get", and a universal modem program. It is one of the easiest word processors to understand second only to Valdocs. However, it may make up for this in speed of execution and the extended use of mnemonics throughout the program. Automatic reformatting, Undo function, CorrectStar, MailMerge, simplified StarIndex make this totally new C implementation of a classic, well worth looking into.

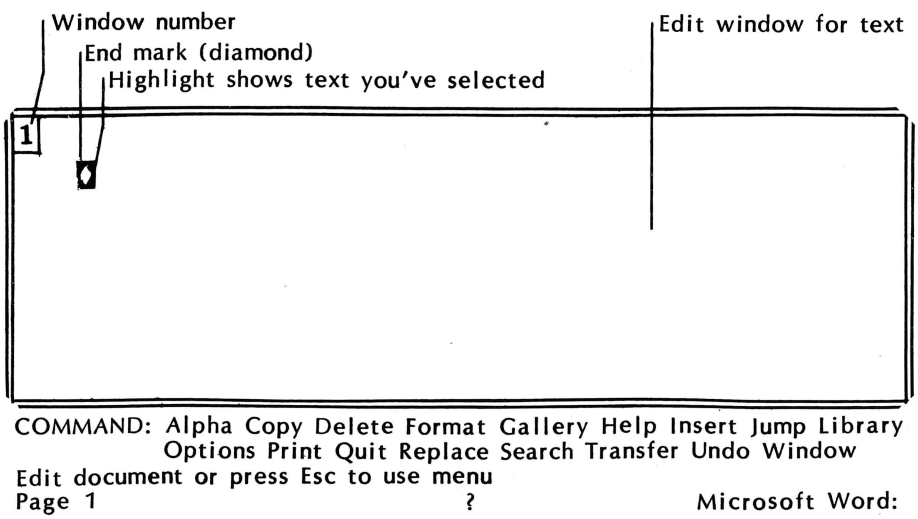
Microsoft Word
Microsoft Corporation
1700 Northrup Way
Bellvue WA 98004

Microsoft Word is a processor designed for heavy text processing and formatting. An accomplished typist who is considering word processing for the first time may find that this program is already familiar because of its extensive use of the dimensional aspects of type pitch and page space. Formatting is accomplished in points (72 points per inch), centimeters, inches, 10 pitch, 12 pitch or lines. It is possible to format a single character (bold, italic), page, paragraph and running head positions. Single character formatting is the most extensive of the medium to high end Word processors on the market today. For example: The Epson LQ1500 can print any of the following print styles: Pica (Modern a), PicaD (Modern b), Elite (Modern c), EliteD (Modern d), NLQ (Modern e), NLQD (Modern f), PS (Roman a), and PSD (Roman b). Fifty-six printers are directly supported including the entire Epson line. If a printer is not listed it is possible through a custom setup routine to establish full support using all of that printers capabilities. Elaborate macros (styles) can be designed for boilerplating, making this a natural for heavy text processing in environments such as legal, medical and publishing.

Word is supplied on five diskettes. After the setup procedure has been run, only the program diskette, data diskette and Microsoft Spell are needed. Disk swapping is therefore limited to the spelling portion of the program. It is not possible at this time to install Word on a hard disk for the Epson QX-16. I suspect that this has to do with the copy protection scheme. No doubt Microsoft will do something about this if enough interest is shown in this program by the Epson computing community. The Microsoft Word tutorial is excellent. It is possible to begin non complex document processing in a very short time using this interactive tutorial which breaks functions down into six to ten minute study sessions, complete with graphics and color. More elaborate instruction is also available. Advanced techniques are not discussed in the tutorial. It is necessary at this level to rely on the Microsoft manual, which has a fair index but somewhat confusing Documentation.

WORD Version 2.0 also supports IBM's Document Interchange Architecture (DIA), which has been adopted by Samna and Multimate International. This makes the change from dedicated word processors, such as Wang, to personal computers less disruptive in the corporate environment.

Two program formats are supported color text or graphics. "What you see


Window number
End mark (diamond)
Highlight shows text you've selected
Edit window for text
1
COMMAND: Alpha Copy Delete Format Gallery Help Insert Jump Library
Options Print Quit Replace Search Transfer Undo Window
Edit document or press Esc to use menu
Page 1
?
Microsoft Word:

is what you get", is supported only in the graphics mode. Text graphics are supported differently in color. Word is one of the few programs which formats multiple columns on a single page. A fair amount of on-line documentation can be called up at any time by pressing the ALT H key. This will allow you to page forward or back in the help file to look at additional prompts. This is a help file and not something which will show a user how to run Word.

There is only one screen to this word processor, however it has the ability to be broken up into several windows. This is where the color (non graphics) mode really shines. Different colors can be used to differentiate among windows. This is great for editing a single document as you go along or for setting up multiple windows for a presentation. A ruler line or line can be displayed along the top. The main command line (bottom of screen) opens up to show sub commands.

There are more keystrokes in this word processor than any other I have used, however execution time is so short it is difficult to imagine doing it any other way. Scrolling a ten page document is instantaneous. The majority of the commands are accessed through the CTRL ALT and function keys. Hard commands such as formatting, printing or document transfer are carried out by first accessing the command line by pressing the ESC key. The command is then highlighted and executed with the RETURN key.

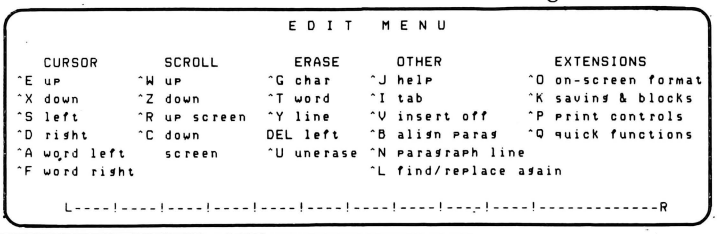
If you are just looking for an alternative, I do not recommend this product. If you are looking for power to do anything with the printed word, or a text processor which offers elaborate screen designs in color for presentations, this is a program which should satisfy all but the most stringent needs, and then it becomes purely a matter of taste.

NewWord
NewStar Software Inc.
1601 Oak Park Blvd.
Pleasant Hill, Ca. 94523

NewWord is one of those interesting products which you just can't resist looking at when it comes across your desk. It looks very similar to another product which has been nicknamed the grandaddy of Word processors. This one is different enough to be a pleasant experience for the hacker and someone looking for inexpensive software which can get the most demanding job done under any conditions.

The manual is a pleasant surprise in that it assumes nothing. The first time user is grabbed by the hand and carefully guided through the installation process. Essential buzzwords are explained in simple English. The table of contents, "Do it yourself index" and NewWord Encyclopedia Index are superb, among the best I have ever seen. There is even a "Nuts and Bolts" section, with user source code listings, for those who just have to tinker.

NewWord is not a "what you see is what you get" text processor, but it does come close. Print enhancements can be viewed as double intensity characters, when the display, which places the control codes beside the affected text, is turned off. This masks the codes and gives a more realistic



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idea of what the finished text will look like. Bold, underline, superscript, subscript, and alternate pitch are a few of the print enhancements possible. If you are using the Epson LQ-1500 printer, proportional printing can be added to NewWord by following the Epson Application Notes (your Epson dealer should have them) "Using the LQ1500 with WordStar".

The menus presented throughout NewWord are comprehensive without being cluttered, yet there are more commands on each screen than can be found in WordStar. Each group of commands is classified and grouped in descending order, rather than being bunched in clumps throughout the screens, making it easier to find a command. A status line displays cursor location, function, and format information at the top of the screen for all help levels except 0 (no help at all).

The CP/M version also displays a "memory full" indicator. As the memory buffer fills up NewWord must access the disk more often to store information. This slows NewWord down. The indicator gives the operator a point of reference where size of file competes with operating speed. When a given window begins to empty beyond the halfway mark, it is best to begin another file chained to the previous one for printing.

Help is just a "J" stroke away. When control J and the function key in question is entered specific information is given for the use of that key. More generalized help can be called up by entering CTRL J "?". If a command is improperly given a helpful error message explains what happened.

There are several automatic features of NewWord which make life a little easier with this type of word processor, such as: Quick Paragraph Alignment, Temporary Automatic Paragraph Indent, and Automatic Ruler Lines. None of these commands is really new. They are just described in such a way that make it easier for the new user to understand.

There is one function which is special to NewWord with which any user will feel comfortable: CTRL U. This is the unerase command. It will return text to a document after it has been erased if it was the last text typed. This feature can also be used for transporting whole words and lines around a document. For example: if a line on page one were to make more sense on page three, use the CTRL Y command to erase the line, then move the cursor to the new location and press "CTRL U". A fast way to do a small cut and paste job.

NewWord is full of tricks to make life a little more enjoyable with a fast text processor. The authors of the manual know their product well. If you have never used a word processor such as WordStar and were afraid to try, if you are not afraid to read a little and learn a lot in the process, NewWord is an alternative text editor which has a personality all its own.

Valdocs 2
Epson America Inc.
2780 Lomita Blvd.
Torrance, CA 90505

Rising Star Industries
25500 Hawthorne Blvd., Suite 2000,
Torrance, CA. 90505

Valdocs 2 is supplied on four diskettes for the QX-10. A load-up diskette which contains the system modules, Run-time diskette with the main programs, a utilities disk and a blank data disk. The QX-16 is supplied with one less diskette because of the extra capacity (720K), of the disk drives.

When Valdocs 2 is loaded for the first time MENU is the first screen. This is the central hub. From here any function can be accessed with a minimal amount of time. Select <S> [RTN] puts Valdocs into the SETUP program. The QX-10 may require a disk swap (to put the load disk back in A drive) in order to load the program. Start at "Date and Time" and follow the prompts. This is one of the easiest setup programs I have ever seen. One caution. Set the date and time before you store any files. Valdocs could have a problem finding them otherwise. This is not a bug, just normal operating procedure. Finally, if you do not plan to have your computer answer the telephone (and a modem is hooked up), enter 0 for Auto Answer count in the communications screen.

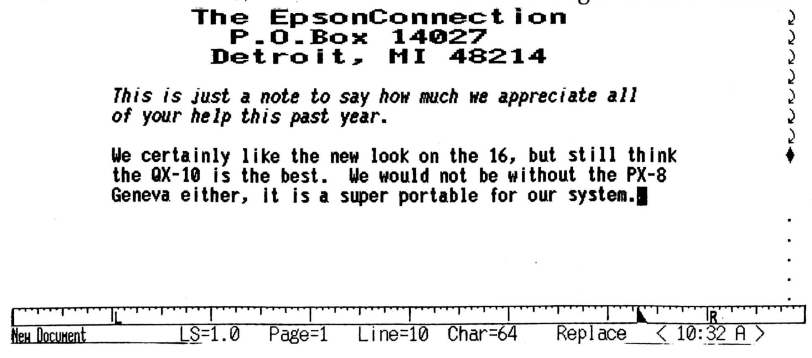
The features offered by Valdocs are among the nicest to be found anywhere. The Mail program is superior to anything I have seen yet. There is an all new label design screen, address book conversion routine (Valdocs 1.18/1.19), and some special screens accessed from the address book for setting up communications and logon macros for each name. For an office environment the log card can be protected with a password so that unauthorized personnel cannot gain access to valuable SPRINT, MCI, and Compuserve numbers as well as passwords.

The schedule module now supports a timer which displays time in hundredths of hours minutes and seconds. The draw function is smooth and fast. This is the only function to support color at this time. A cardfile (mini data base) is accessed through the menu function. It supports user defined Primary and Secondary sort fields (up to 25 characters), with 14 data fields (up to 56 characters), and there are 16 user definable index tabs which will accept up to 65 characters each.

The spreadsheet will not set the world on fire for speed or features but it is easy to use. The documentation claims that it is a 64000+ cell virtual spreadsheet boasting 702 columns and 999 rows. It does not rely on memory, hence it is a virtual spreadsheet. This means that it must rely on disk access for all operations. That could get just a tad slow. I suspect though, there is sufficient power and speed here for a small business or personal financial analysis.

The editor is a true, "What you See is What you get Word processor." It is the easiest to use of any on the market today and can be learned without the manual in a matter of minutes. On screen page formatting can be accomplished by direct input, or graphically by moving two cursor arrows to the desired positions on the page. This can be preset by pre-defining page formats, saving them as individual files such as header and ragged right, justified , double spaced, and then assigning each file a single key command in Defkey.

Attributes such as bold, underline, italic, subscript, and superscript are easy to use. Too easy. The temptation to overindulge during the initial entry of text will begin to slow Valdocs


The EpsonConnection
P.O.Box 14027
Detroit, MI 48214
This is just a note to say how much we appreciate all of your help this past year.
We certainly like the new look on the 16, but still think the QX-10 is the best. We would not be without the PX-8 Geneva either, it is a super portable for our system.
New Document LS=1.0 Page=1 Line=10 Char=64 Replace < 10:32 A >

down during final editing if large files are encountered. All integrated software manufacturers suggest that special attributes be inserted into the text during the final edit. Excellent advice if speed and large documents are a necessary part of life, and you use this editor.

This is the only integrated system running in an eight bit environment for personal computers. Speed overall is nothing to get excited about. Overall, it appears to run as fast as Word Star 2000 without attributes. A compliment to the programmers. Still there are areas which have you sitting on your hands waiting.

The preliminary manual for Valdocs 2 is crammed full of goodies. The new user will get a far better running start than those of us who experienced the lack of information in earlier releases. Those more familiar with Valdocs will find that an evening or two exploring the different sections will keep them from getting into trouble, particularly the section on conversion and file dating. Rising Star has included a section on customization of Valdocs. The mysteries of ".CHN and .INI are explained. It is even possible to create a single Valdocs diskette which does not require disk swapping.

I would like to see better printer and modem support. The world, unfortunately, does not run on Epson printers and Comrex modems alone. This required homework on the part of software houses is now taken seriously by the top ten Text processors on the market. I am surprised that Rising Star Industries, the pioneers of "user friendly software/hardware", would leave the user foundering with an assignment of "OTHER" (which does not always work), in these areas.

Valdocs is also missing a spelling checker, a serious omission for a product with a list price of $495.00. There is an answer to this which unfortunately requires the outlay of additional money. Word Plus can be made to run in TPM and accessed through Defkey to check a document in ASCII and then return the file for additional editing to the screen. This will be discussed further next month.

There are 32 HASCI control keys currently defined. The majority are documented according to function in individual pop-up menus. If speed is essential to the user, these keys must be learned and used, as is the case with any Word processor. It makes more sense to press CTRL-A to move several keystrokes to the left than pressing the left arrow key to get to a previous word. Some of the unfair criticism of earlier versions of Valdocs were no doubt due to the fact that these (speed) keys were not being used properly. This issue of the EpsonConnection has a convenient tear out reference card featuring these special control sequences.

The serious Valdocs 2 user might want to consider the purchase of a hard disk. The benefits of speed and file handling, particularly in the editor and spreadsheet modules, are just too great to be overlooked. If you intend to use a full blown system with all the goodies this can save a lot of unproductive time just handling disks.

I have been using Valdocs 2 along side all of the other programs reviewed here. It is by far the easiest to use, and can save a large bundle of money for the user who doesn't need a mouse or a color monitor. There are many disadvantages to the MS-DOS environment. Many potholes to fall into. Valdocs 2 and its advanced TPM environment provide a safe comfortable environment for all but the most demanding use. Now isn't it nice that "WORKING... PLEASE WAIT..." is over?

P.S. RSI, will you pleeeze give Valdocs users a single envelope typing function, mailmerge, cut and paste graphs and spreadsheet data into the editor.....and by the way, ***Thanks RSI.*** ■

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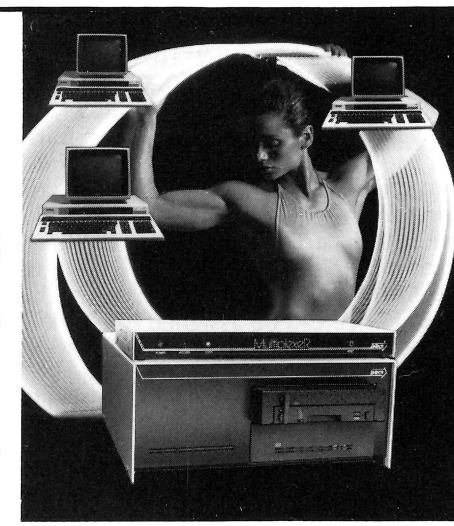

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Valdocs2 Def Key

by Jennifer Capp and Carolyn McCarthy

One of the enhancements in Valdocs 2 is the utility program called DEFKEY.SYS. DEFKEY is found on the disk identified as the Valdocs 2 RUN disk. This is a program which allows you to redefine the special HASCI keys at the top of your keyboard, as well as the number keypad keys 0-9. There are infinite things you could use this feature for, and we will list just a few to give you a glimpse into the possibilities.

If you have a particular heading, phrase or salutation that you use frequently in your correspondence or writing, then this program will enable you to assign that character string to an individual key on the keyboard. The text then can be recalled by the press of one or two keys.

For example, to erase the screen in the Valdocs editor and throw away a document takes six keystrokes. This type of sequence can be assigned to one key in Defkey, and then carried out by pressing only two keys.

A person who uses TPM can assign utilities such as Zpip to be called up by pressing the copydisk key, or PeachCalc to the CALC key, Valdraw to the Draw key, and so on.

If you are interested in trying this utility out, then be sure you have gone into the SETUP menu and in <V>aldocs System Characteristics select either expert or advanced experience level first. Then press the MENU key in Valdocs 2 and select <R>un specific program, and type in DEFKEY.SYS where indicated. Two RETURNs later you will see a new MENU (fig.1).If you select <T>PM or <O>ther applications you will (fig.2) have the opportunity to redefine the special HASCI keys (STOP, HELP, SCHED, etc.,). If you select the <V>aldocs applications then you will be re-defining the numerical keypad keys (0-9) (fig.3).

Figure 1

```
Which area do you wish to define?

     <T>PM                          <V>aldocs applications
     <O>ther applications           <L>oad definitions from disk

                    < UNDO to exit >          < 12:35 P >
```

Figure 2

```
Stop  :
Help  : b:mbasic
Cpyd  : zpip
Undo  :
Store :
Retrv : unval2
Print : P
Index : dir
Menu  : RESTART MENU
Calc  : b:pt  pc
Schd  : valpaint
Draw  : valdraw
Mail  : qxmdm
Edit  : b:ws
Bold  : vs
Italic:
Size  : qxbanner.bas
Style : cribbage

STORE to save definitions, HELP for instructions, UNDO for prior menu.
To enter HASCI keys (ie: UNDO) into a definition precede them with the +/- key.
143 characters remain for TPM definitions.
```

Figure 3

```
Ctrl-0: Chuck Champlin Epson America Inc.
Ctrl-1: 3415 Kashiwa St. Torrance CA 90505   Dear Chuck,
Ctrl-2:
Ctrl-3:
Ctrl-4:
Ctrl-5: Most Sincerely,   Carolyn McCarthy
Ctrl-6:
Ctrl-7:
Ctrl-8:
Ctrl-9:

STORE to save definitions, HELP for instructions, UNDO for prior menu.
To enter HASCI keys (ie: UNDO) into a definition precede them with the +/- key.
101 characters remain for VALDOCS definitions.
(NOTE: Ctrl-0 thru Ctrl-9 use the numeric keypad only!)
```

You may notice that there is a limit to the total number of characters you can assign. The maximum number of characters, or keystrokes per key is 62, and the total number of characters for all the assigned keys in the particular file you are creating is 254. You can create any number of definition files, and store them to disk for later use. Say for instance, you are a court reporter; you might set up a file that contains legal terminology or phrases used with a particular judge. You might make another set to use with a different type of case. You can also create sets to use with the spreadsheet, or in VALMAIL. Logon messages, passwords, these are also options to use as definitions.

After defining and saving a set of definitions in DEFKEY, you should select <U>pdate to have a particular file placed into the CMOS memory of the computer. Yes, this means that it will continue to be "remembered" by the computer even after it is turned off, and will remain there until updated.

If you refer to figure 1, you will notice there are three main options where you can use the different sets of definitions: when you are in TPM, in Valdocs applications, and in Other applications. You can actually have more than one loaded into memory at the same time. If I plan to use MBASIC, and have it on the B drive, I might set up my TPM defkey assignments as in fig. 2. So I would update my TPM definitions to have this in memory, then there are some commands I use frequently within MBASIC (an <O>ther application program). So I might set up a defkey file as in fig. 3. This can also be placed in memory. The TPM defkeys will be in use while in TPM, and once I enter an application program, like MBASIC, the <O>ther defkey definitions are available.

The defkey program can also be entered directly from the editor by pressing CTRL U. Try it out and be sure to share any "special" uses you discover with the rest of us.

We would like to thank Jennifer Capp of Rising Star Industries and Ralph Ruh, EpsonNet Coordinator for their assistance with Defkey applications.

Graphics and Pascal

By David Crotty

Graphics with MicroNova's TurboPlot and Borland's Turbo Pascal.

The Epson QX-10 has several features that allow it to stand out among other machines. One of these is the excellent graphics capacity of its screen. It has, therefore, been a matter of great frustration to owners of this machine that graphics are generally out of the reach of programmers lacking experience in Assembler language. The "Programmers Guide to Valdocs" [1] outlines graphics and other functions built into the TPM-II operating system. It is impossible to use these functions without considerable Assembler experience.

In 1984 RSI BASIC became available, giving the programmer the first graphics capacity from a high level language. Soon after this, MicroNova [2] brought out the MicroPlot Graphics Package, a set of functions and procedures for use with the Pascal/MT+ from Digital Research. The MicroPlot package could not be used with Turbo Pascal from Borland International, part because the procedures and functions were coded into a searchable library that Turbo Pascal could not use.

During the autumn of 1984, MicroNova introduced the TurboPlot Graphics Package which was specially designed for use with Turbo Pascal. This package consists of a set of files containing source codes for the procedures and functions that make up TurboPlot. The files may be included as needed using the Turbo Pascal "include" feature. The source code, while copyrighted, is available as an excellent source of examples of access methods to TPM graphics functions. In addition the source code is available for modification by the licensee of the Package.

Access to the TPM Graphics Functions

The TPM-II system contains a number of functions that may be accessed through what is known as a "system call". The first 27 functions are identical to the first 27 CP/M functions. When TPM was developed CP/M didn't have function calls above 27 and TPM was designed with functions 28 to 241 (not all numbers are used), however, later versions of CP/M use functions up to 40 creating an overlap. TPM-II provides for use of both CP/M and TPM function calls by providing for methods to switch between the CP/M and TPM modes. In addition, disc files named FILENAME.SYS will automatically use the TPM mode and files named FILENAME.COM will use the CP/M mode.

A system call may be made using the Z80 Assembler language to load the function number into the appropriate Z80 register. Other data may be required in other registers as well. Finally, a "Call 5" calls the system to execute the desired function.

The TPM mode function 39 provides access to the graphics driver if the VDRIVER is loaded (see notes). Next, the desired function number is loaded into an appropriate register along with the data required for that function and the system is then called on to perform the function.

The Turbo Pascal Procedure in Listing I is a primitive graphics procedure using the TPM function 129 which draws a rectangle on the screen. This procedure illustrates the use of the Turbo Inline feature which permits assembler commands to be inserted into the body of a Pascal program.

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Listing I

```
PROCEDURE Rectangle(dx,dy:INTEGER);
{dx and dy are lengths for the sides of the rectangle}


$0E/39 /      {LD C,39      call the graphics driver      }
$06/129/      {LD B,129     call the rectangle function   }
$ED/$5B/dx/   {LD DE,(dx)   load dx to DE register        }
$2A/dy/       {LD HL,(dy)   load dy to HL register        }
$CD/5/0);     {CALL Opsys   call the system zzzx          }

END; {Rectangle}
```

This Rectangle procedure will draw a box that is dx by dy pixels on the screen with the current cursor position being the lower left corner of the rectangle.

The development of a graphics package around the primitive TPM-II functions requires attention to a number of details that are not necessarily obvious to a beginner. Knowledgeable friends can be very helpful [3]. TurboPlot implements all of the basic graphics functions of TPM-II, but then goes on to include much more.

TurboPlot Graphics - Getting Started

The TurboPlot system requires initialization of a number of parameters. The procedure Init is used at the beginning of a graphics program to set parameters and enter the QX-10 graphics mode. The procedure Finit provides for a graceful exit from the graphics mode at the end of the program. Termination of a program before calling Finit leaves the screen in an unusable condition.

The Absolute Scale

Another important feature of a graphics program is scale. TurboPlot defines the absolute screen scale of the QX-10 as a rectangle that is 640 by 400 pixels with the origin at the lower left hand corner. The absolute scale procedures address the screen pixel by pixel.

The absolute procedures facilitate the movement of the cursor on the screen and the drawing of lines and figures. An example of an absolute TurboPlot procedure is:

Rectangle(xs,ys,dx,dy:INTEGER);

which is an improvement on the example procedure given above. The TurboPlot Rectangle procedure specifies xs and ys, the absolute position of the lower left hand corner of the rectangle to be drawn, as well as dx and dy which are the lengths of the two sides of the rectangle in pixels.

In addition to the absolute graphics commands, there is a set of relative commands that plot relative to the current cursor position. For example, while the absolute procedure Pointa(x,y:INTEGER) sets a single pixel at the absolute x,y position specified, the relative procedure Pointr(dx,dy:INTEGER) sets the pixel that is dx and dy pixels relative to the current cursor position.

The Virtual Graphics Scale

It is often more logical to define a scale that can be directly related to the task at hand. For example if a program is calculating prices in dollars in the range of, perhaps, $1 to $10,000 then it would be most inconvenient, and definitely confusing months later during program modifications, if the program has to plot the computed results in terms of pixels. This is where the virtual, or user defined scale becomes useful.

The virtual screen scale is defined using the procedure

Vwindow(xmin,xmax,ymin,ymax:REAL);

which redefines the screen in terms of the dimensions specified. The xmin, xmax, ymin and ymax terms may define any desired scale. In our example this might be zero to 10000. Another scale might be selected by Vwindow(-5, 10, 0, 50) where the x axis ranges from -5 to 10 and the y axis ranges from zero to 50.

Normally, the use of the Vwindow procedure redefines the entire 640 by 400 pixel screen to the virtual or user coordinates. However, it might be desirable to set a small portion of the screen aside for the virtual window by using the procedure

Swindow(xmin,xmax,ymin,ymax,:INTEGER);

where a rectangular area, in pixels, is defined on the screen for the virtual window. The following sequence of commands might be written:

```
Swindow(160,480,100,300);   {define the screen area   }
Vwindow(-5,10,0,50);        {define the virtual scale  }
Vrectangle(-5,0,15,50);     {frame the virtual screen  }
```

to define a rectangle in the very center of the screen that has been scaled to the desired virtual scale. In addition, the graphics area has been framed by the Vrectangle procedure which draws lines according to the new virtual scale. Points plotted using the virtual procedures, like Vpointa or Vpointr, will set pixels according to the absolute or relative position using the virtual scale. If a point or line is plotted outside the screen window, the pixels will not be set.

After a virtual window has been defined, all virtual commands will use that scale. However, the non-virtual commands, like Pointa or Pointr, know nothing of the virtual scale and will continue to operate as if the new scale did not exist.

TurboPlot Routines

Once the screen scale has been determined, there are routines that perform most of the basic plotting functions. Separate commands are available both for the normal pixel by pixel scale and the virtual scale. A partial list of functions is listed here.

Graphics Routines

moveto	moves cursor to a specific point
move	moves cursor relative to current position
drawto	draw a line to a point from current position
draw	draw a distance from current position
vector	draw from one point to another
dashto	draws a pattered line
pointa	set absolute pixel
pointr	set relative pixel
rectangle	draws a rectangle
fillrect	fills the rectangle with a pattern
circle	draws a circle
arc	draws an arc cursor permits manual cursor movement with <ctrl>SDEX diamond
position	a number of commands to obtain the current cursor position

Miscellaneous Routines

clear	clear the screen
rotate	rotate the screen
non-linear	both polar and log coordinate systems are available
pause	pauses execution also allows a screen dump to the printer
screendump	dumps screen to printer
sound	generates a tone of desired frequency and duration

Character Graphics

While it might be interesting to be able to draw lines and pictures, it is often more practical to draw text. TurboPlot not only provides all of the normal Valdocs text characters but also provides instructions for creating user defined characters. This would permit the use of the odd graphics character or the development of an entire non-roman alphabet. Every character, either standard or user defined, may be drawn in the normal 8 by 16 pixel matrix or in any desired size or angle.

Now For The Hard Stuff

So far, all graphics have been assumed to be drawn on the visible screen. The 640 by 400 pixel visible picture takes up about 25% of the graphics memory. The rest of this may be used in a number of interesting ways.

The visible picture is the 640 by 400 pixel area on the video screen. This picture may be divided into two separate display windows. This definition of window is quite different from the Swindow and Vwindow definitions as discussed above. By default, there is just one display window encompassing the entire visible picture. However, the programmer may divide the picture into two windows in order to display a menu, for example, in part of the visible picture. While the total number of visible lines is always 400 the two windows may be specified to use any portion of this total.

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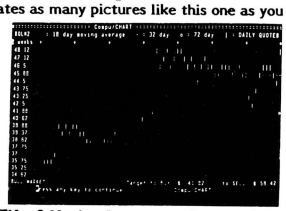

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The user may define as many as 16 different drawing screens with a total of 1638 pixel lines (that is, about four full visible pictures). Each drawing screen may be attached independently once it has been defined and may be drawn to even though the attached screen may not be a visible screen. A screen may be drawn and then attached to one of the two display windows as a means of quickly displaying a menu or other information.

It would also be possible to define just one drawing screen of up to 1638 pixel lines of which only 400 lines would be visible at any one time. The visible window may then be moved through the screen by using the Pan procedure.

Each screen may be independently defined as bit mapped or character mapped. A character mapped screen may contain only standard or user defined characters and scrolling is faster in this case. Bit mapped screens may contain both characters and graphics drawings.

A number of procedures are available in the TurboPlot system to utilize all these screen capacities of the QX-10.

Developing a Program With TurboPlot

The TurboPlot manual details the steps required to use the package with Turbo Pascal and the TPM-II system. A number of additional details are included in the accompanying notes. The package itself comes with three separate versions of TurboPlot. Each version consists of a set of disc files that must be included in the main Turbo Pascal program. The first version contains only the Pascal procedures and functions that might be needed for simple graphics applications. The other two versions contain more complete sets of the total package.

During development of a program it is advisable to include every file that might be required. This tends to add a large body of text that is not needed by the application program, not to mention extra compilation time during each test run. Compilation is rather fast in Turbo Pascal and this is not especially irritating. After the program is fully developed, the programmer might edit out the sections of TurboPlot text that are not needed. This editing task will not be simple since the TurboPlot system contains a large number of procedures that are used internally and are not described in the documentation.

A sample program, FRACTALS, using a few of the simpler TurboPlot graphics procedures, is given in Listing II. FRACTALS illustrates how TurboPlot is implemented in an applications program with the Turbo Pascal Include feature. The programmer must have the TurboPlot library in order to use this program. In addition, it must be run under TPM-II with the Valdocs video driver, VDRIVER, loaded (see notes).

This program is an adaptation of a BASIC program written by Greg Turk and described by Peter Sorensen [4]. The field of fractals is a mathematical field that describes the universe in partial or fractional dimensions rather than the more common whole number dimensions. In any case, the program defines a fractal dragon. Each run of the program draws a two dimensional slice of the dragon from the input of two parameters, LambdaX and LambdaY, and a scale factor. Three sets of the more interesting figures will be drawn using the lambda sets (3,0), (0,1), and (1,0). The set (2,0) draws a perfect circle. A scale of 1 usually fills the entire screen; but sometimes the diagram is larger than that so a scale of 4 is usually best.

The program actually draws each portion of the dragon twice in different screen windows to demonstrate some of the TurboPlot features. The program may be paused at any point by pressing any key. If during the pause a "p" or "P" is pressed the screen will be dumped to a dot matrix printer. Pressing any other key terminates the program.

Summary

TurboPlot is a package that brings graphics capabilities into the hands of the average Pascal programmer. All the documented graphics functions of the QX-10 are implemented by TurboPlot. In addition, a number of extra features are included to free the programmer from the many details associated with graphics display.

The package consists of a library of source code files that are to be used with Turbo Pascal by means of the Include feature.

The TurboPlot package implements all the Valdocs standard characters and includes instructions for the development of user defined characters.

The package also supports the use of the unique multiple screen features that are built into the TPM-II operating system.

Finally, TurboPlot contains a simple to use Sound procedure that provides for easy access to the QX-10's speaker, to bring music to our ears.

✲References✲

1. *"A Programmers's Guide to Valdocs", Rising Star Industries, 1984.*

2. *"MicroPlot Graphics Package" and "TurboPlot Graphics Package", MicroNova, R.R. #5, Canning, Nova Scotia, Canada, 1984.*

3. *Here I must acknowledge the assistance of Amos Lev of Southfield, Michigan who has written a less ambitious but excellent graphics package, and Terry Ritter of Austin, Texas who has provided QXTURBO2.LBR containing documentation describing the correct installation of Turbo Pascal on the QX-10 under the TPM-II operating system and the program TKK to reconfigure the QX-10 keyboard.*

4. *"Fractals", Peter R. Sorensen, BYTE, September 1984, p. 157. See also "Enhanced Fractals", Thomas Phipps, Letters, BYTE, March 1984,p. 18.*

Notes: Using Turbo Pascal and TurboPlot with the TPM-II Operating System

Use of Turbo Pascal with the CP/M-80 operating system is fairly straight forward because the screen used emulates the Televideo 920 screen. However, in the TPM-II operating system the screen varies somewhat from other screens and a special installation is required. In addition, the keyboard is configured in a way that does not allow the Turbo Editor to use the arrow keys or, for that matter, be reconfigured as intended by Turbo Pascal's writers at Borland International. A public domain utility, QXTURBO2.LBR, by Terry Ritter, is available on the QX-10 bulletin boards that contains instructions for the screen installation and a program that reconfigures the keyboard to enable the arrow and other special keys.

Screen Installation with Turbo's TINST

If QXTURBO2.LBR is available, erase the TINST.DTA file from the Turbo Pascal working disc and copy the TINST.DTA file found in that library. On screen installation with Turbo's TINST choose the Epson QX-10 TPM screen from the list and intialization is complete.

If this file is not available choose "other" from the TINST list of screens and proceed to manually install the QX-10-TPM definition as follows:

```
Enter name of terminal: QX-10 TPM
Send an initialization string to the terminal?--Y;
    Initialization string--<ESC> "(" (27 40);
Send a reset string to the terminal?--Y;
    Reset string--<ESC> "(" (27 40);
Cursor Lead-In--<ESC> "=" (27 61);
Cursor positioning between line and column--(nothing);
Cursor positioning after line and column--(nothing);
Column first?--N;
Offset to add to LINE-- 32;
Offset to add to COLUMN--32;
Binary address?--Y;
Clear Screen command-- Ctrl-Z (26);
    Does Clear Screen also Home cursor?--Y;
Delete line command--(nothing);
Insert line command--(nothing);
Erase to end of line command--<ESC> "T" (27 84);
Start Highlighting command--<ESC> ")" (27 41);
End Highlighting command--<ESC> "(" (27 40);
Number of rows--25;
Number of columns--80;
Delay after cursor address--(nothing);
Delay after clear, delete, and insert--(nothing);
Delay after Erase to end of line--(nothing);
Operating frequency (MHz)--4.
```

Use of this installation definition should produce a fully operational Turbo Editor.

Command Installation with Turbo's TINST

Before the Turbo Editor commands may be redefined as intended by Borland the program TKK.COM from the QXTURBO2.LBR must be run. TKK must be on the working Turbo disc along with the TPM-II operating system. Type TKK, and wait the second or so that it runs, and then run Turbo's TINST. Install the editor commands as you wish using the arrow keys as well as the special function keys at the top of the keyboard. The documentation in QXTURBO2.LBR suggests a rather well thought out command set. ■

Continued in Part 2 Next Month. . .

. . . using QXTURBO2.LBR and Turbo Plot with the Valdocs Graphics Driver

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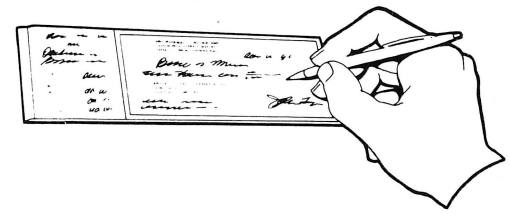


by Carolyn McCarthy

SPEC SPOT

Product: Quick Check
Type: Checkbook bookkeeping and accounts payable system.
Computer: QX
Operating System: CP/M
Required Peripherals: Use with a printer is suggested.
Price: $95.00
Ease of Use: Extremely easy, all menu driven.
Performance: Excellent
Documentation: The 60 page manual is used as a reference, and is not needed for startup and entry.
Summary: This is an excellent program for home and small business use. The program will print checks, reconcile your checking account, track expenditures by account, and process pay checks. A profit summary and income and expense statement are part of the report features included.
Manufacturer:
Chuck Atkinson Programs
Route 5, Box 277-C
Benbrook, TX 76126-9990

Quick Check is a checkbook manager and bookkeeping program for home and small business use. It is extremely easy to use. Copy the disk with your CP/M disk (copy both the data and system tracks), and make a blank formatted disk. With the Quick Check disk in the left drive, and the data disk in the right, you boot up and type QC. From here on everything you do is presented in menu screens. I referred to the manual only once it was so easy. The first task, which took the longest (about an hour) was deciding which expense accounts I would want. The following list are the ones finally decided upon:

```
        Q U I C K   C H E C K   P L U S

                  home     03/17/84

 CHECK BOOK OPERATIONS     SIMPLIFIED BOOKKEEPING
 ---------------------     ----------------------

  A  =  ADJUSTMENTS         E  =  EXPENSE ACCOUNTS
  B  =  BALANCE             I  =  INCOME
  C  =  CHECKS              M  =  MONEY (CASH SPENT)
  D  =  DEPOSITS            N  =  NEW DATE
  R  =  RECONCILE           O  =  OPEN ACCOUNTS
  ?  =  HELP                S  =  SUMMARY

                  Q  =  QUIT

              ENTER SELECTION :
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
```

From there on entry of the checks and deposits was a cinch, and the check number was automatically advanced after each entry. Checks can be split between different expense categories. Reconciliation with your bank statement is a relief, this is usually such a chore. Menus will prompt you to indicate which checks have cleared, and a convenient increase or decrease option is available for bank charges or special adjustments.

This program will also print checks.

Report Options

Reports can be printed out for all phases, including a continual audit trail of all entries as they are made. Listings helpful for our records were: Check register, deposit records, checks listed by each expense account, and the balance statement. This program will also print your checks for you if you order checks on formfed sheets.

Summary

This is the easiest checkbook and bookkeeping program we have seen. It runs well on the QX-10. Documentation is virtually unnecessary and good. The program will allow you to have approximately 1500 records entered per data disk. If you reach the limit you can continue on another data disk, however you would need to bring the balance and other pertinent information forward. Other programs, such as the Quick Register- Retail Inventory Program by Chuck Atkinson will interface with Quick Check. Quick Check can also be upgraded to Quick Check Plus for the $100 price difference. The Plus version includes an Accounts Receivable and payable module to interface with Quick Check. This reviewer certainly appreciates the ease of use, speed and features available in this program. ■

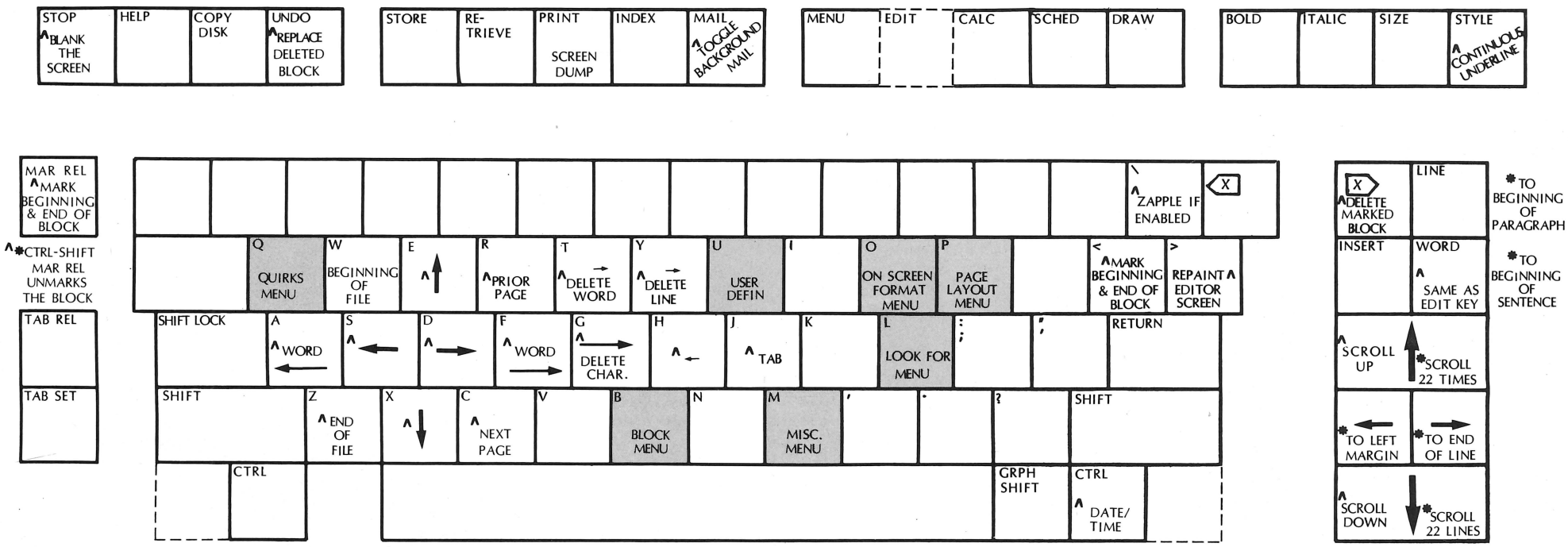
```
                    home
          E X P E N S E   C O D E S     03/17/84

 CODE     DESCRIPTION                PAID TO (OPTIONAL)

   1      Accounting
   2      American Express
   3      Appliances
   4      Auto Expense
   5      Auto payments
   6      Computer Expense
   7      Dearborn Bnk Trst
   8      Detroit Edison
   9      Donations
  10      DYC
  11      autobanker
  12      Empire of America
  13      Employee-Miscell
  14
  15      Furniture
  16      Groceries
  17      HBO
  18      Gas
  19      Heathkit
  20      Hudsons
  21
  22      Insurance
  23      Interest expense
  24      IRS-940
  25      IRS-942
  26      Income Tax
  27      John C
  28
  29
  30      Leamington
  31      Employees
  32      Mastercard-NBD
  33      MESC
  34      Miscell
  35      Office Supplies
  36      Pennys
  37      Phone
  38      Rentals expense
  39      Rental mortgage
  40      repairs
  41
  42      Sacks Fifth Ave.
  43      Sears
  44      Security Bank Trst.
  45      Stereo
  46      Subscriptions
  47      Sylvia E
  48      Water
  49      Winkelmans
  51      Notes payable
  52      Federal income tax
  53      Loans payable
  54      Loans receivable
  55      Personal
  56      Fixed assets
  99      Split Checks
```

Valdocs 2 Editor Reference Card

VALDOCS 2 EDITOR FUNCTIONS



^CTRL pressed with these keys produce the indicated special cursor movements or editing functions.

CTRL plus the shaded key brings up the indicated menu functions.

*SHIFT pressed with these keys produce the indicated cursor movements.

HASCI I KEYBOARD ——
HASCI II KEYBOARD – – –

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The following files are on the listed Valdocs 2 disks:

LOAD

CARDFILE.SYS	22K
CPYD.CHN	22K
FX80.STL	4K
GDRIVER.CHN	30K
HASCI.STL	30K
HELP2.HLP	36K
INDX.CHN	26K
INDX.OVL	58K
INITIAL.INI	2K
LABELS.SYS	24K
LOADUP.CHN	2K
LQ1500.STL	6K
MENU.CHN	16K
RESTART.SYS	2K
SCHD.CHN	48K
SCHD.TIM	2K
SETUP.SYS	18K
SYSINIT.CHN	26K
TPM.CHN	4K
VERSION.SYS	2K

There are two other disks included with Valdocs 2 for the QX-10. These include a Demo disk with help files, and a Data disk with help files.

RUN DISK

CPYD.CHN	22K
DEFKEY.SYS	14K
DRAW.CHN	36K
EDIT.CHN	48K
EDIT.OVL	44K
INDX.OVL	58K
MAIL.CHN	36K
MENU.CHN	10K
RESTART.SYS	2K
SPRD.CHN	50K
SPRD.OVL	42K
TPM.CHN	4K
VERSION.SYS	2K

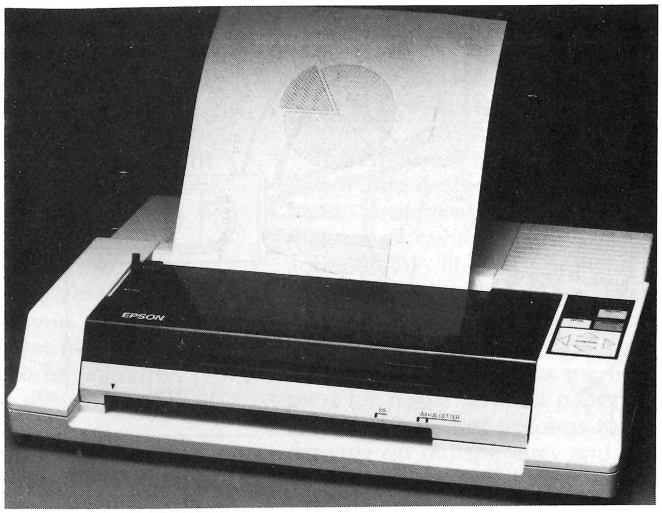
The TPMTOOLS.DOC is a brief documentation about the files on the utilities disk. Further information is available from other Rising Star Industries' publications.

UTILITIES DISK

@.SYS	2K
ASC.SYS	4K
BAUDSET.SYS	2K
DEFKEY.SYS	14K
DMU.SYS	8k
DSTAT.SYS	2K
HELP1.HLP	138K
INDX.OVL	58K
IUTIL.MEN	4K
IUTIL.SYS	28K
LIST.SYS	2K
MATRIX.SYS	28K
MBUILD.SYS	20K
MENU.CHN	10K
RESTART.SYS	2K
SET-TIME.SYS	2K
SPOOL.SYS	2K
TPM.CHN	4K
TPMTOOLS.DOC	6K
VALUTIL.CHN	24K
VERSION.SYS	2K
ZDDT.SYS	4K
ZPIP.SYS	6K

HI-80

by Jerry E. Howell



SPEC SPOT

Product: Epson HI-80 Plotter/Printer
Type: 4 Pen, automatic pen change
Size: 16-1/8" wide, 10-3/4" deep, 3-1/4" high
Weight: 10 U.S. Pounds, 4.5 Kilograms
Port: Standard Centronics Parallel
Price: $595.00
Ease of Use: Excellent
Performance: Excellent
Summary: Produces high quality ink drawings on paper or OHP film (with oil-base pens)
Manufacturer:
Epson America, Inc.
2780 Lomita Blvd.
Torrance, CA 90505

The Epson HI-80 Plotter is an attractive unit. It has a smoke - colored transparent dust cover which can be raised for access to the pens and the drawing area. It can be used with the cover in place or off the unit. A control console has three LED's which show Power, Error and On/Off Line status. Control buttons are of the membrane type and include ON/OFF Line, CAP/OFF, pen UP/DN and POSITION (4 arrow keys) to manually place the pen at any location on the paper. The main ON/OFF switch is on the right side near the back, and the parallel input port is on the back left side.

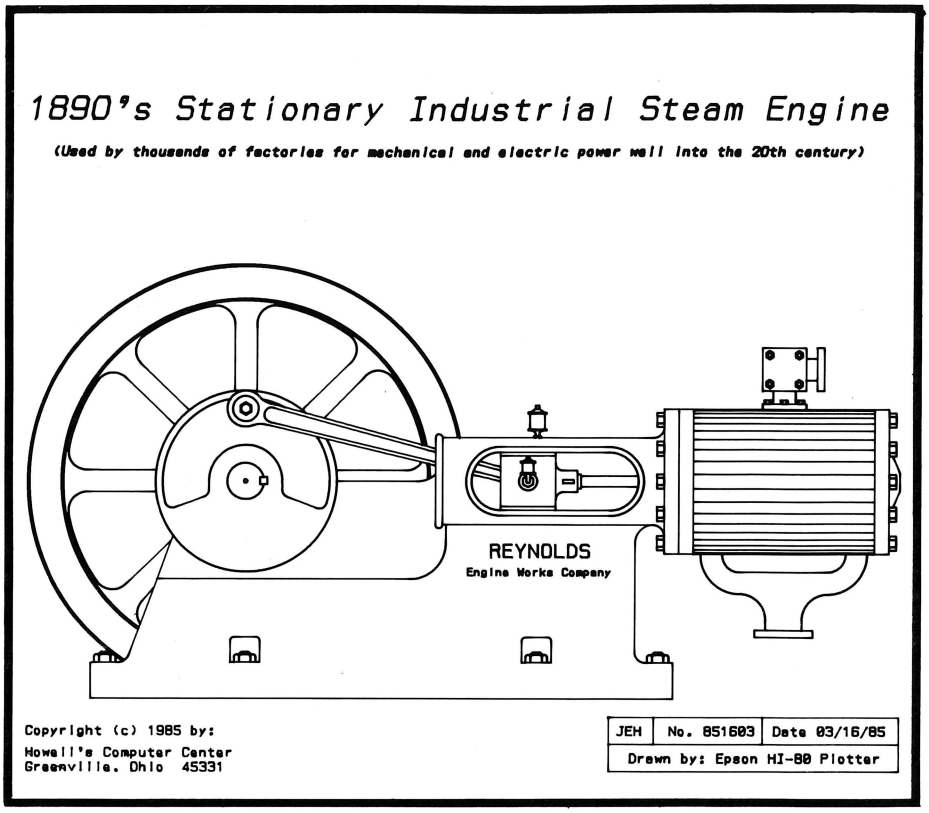
The Operating Manual supplied with the unit is 275 pages in length and is fairly straight forward. The preliminary chapters cover unpacking, installing the pens, setting the internal DIP switches, connecting to the computer, pen types, switches and indicators, plotter and printer modes, the coordinate system and a few other items the user needs to become familiar with. The rest of the manual covers the three different modes of operation, plotting concepts and appendices. The three modes of operation are: Plotter Mode 0, Plotter Mode 1 and Printer Mode.

Plotter Mode 0

Some of the HI-80's capabilities are apparent by examining the commands in this mode. They are as follows:

DA - Draw Absolute. Draws a line from the current pen position to specified absolute coordinates.
DR - Draw Relative. Draws a line from the current pen position to specified relative coordinates.
MA - Move Absolute. Raises the pen and moves it to specified absolute coordinates.
MR - Move Relative. Raises the pen and moves it to specified relative coordinates.
LA - Label ASCII String. Draws an ASCII character(s).
CA - Circle Absolute. Draws a circle or arc of specified radius a specified number of degrees around a center specified by absolute coordinates.
CR - Circle Relative. (you've got the idea by now)
VA - Curve Absolute. Connects points with a smooth curve.
VR - Curve Relative. Connects points with a smooth curve.
AX - Axis. Draws coordinate axes in the X and Y directions and plots scale tick marks.
TL - Tick Length. Specifies length of tick marks in above.
GR - Grid. Draws a lattice along the X and Y axes.
HB - Hatch a Block. Draws a rectangle and hatches interior.
HP - Hatch Pie. Hatch a pie segment.
AR - Arrow. Draws 4 types of arrows.
CS - Character Set. Selects international characters.
SI - Character Size. Specifies the size of characters.
DI - Character Direction. Specifies rotation angle of characters.
SL - Character Slant. Specifies character slant angle.
EM - Character Emphasis. Specifies enhanced characters.
RC - Reset Characters. Default character parameters.
LT - Line Type. Specifies solid, dotted, dashed etc., lines.
LP - Line Pitch. Specifies pitch of above command.
IW - Input Window. Specifies the effective plotting range.
OR - Origin. Specifies current pen position as the origin.
IF - Input Factor. Specifies drawing enlargement/reduction.
VS - Select Velocity. Specifies pen down speed.
HO - Home Position. Raises pen and moves it to the origin.
CH - Change Paper. Raises pen and moves it for paper change.
SP - Select Pen. Select pen color or cap all the pens.
DF - Default Values. Initializes all functions.

There are a few others, but you can see the flexibility of the commands from these. The actual command syntax is quite simple. For instance, to draw a 50.0mm circle with the center at a location 120.7mm along the X axis and 170.5mm along the Y axis would be as follows: "CA 1207,1705,500,0,3600". The "0,3600" in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(Used by thousands of factories for mechanical and electric power well into the 20th century)
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Engine Works Company
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Date 03/16/85
Drawn by: Epson HI-80 Plotter

the specifications cause the circle to be drawn from 0 degrees to 360.0 degrees (a complete circle). The plotter measures distance by 1/10th of a millimeter and arcs by 1/10th of a degree. If you want to change the color to red, and it is in pen position 3 in the pen cartridge, the syntax would be: "SP3" (Select Pen 3).

Plotter Mode 1

This mode uses only 18 single letter commands and is not as powerful as Mode 0. It is a basic plotter mode which is compatible with the commands used on the WATANABE (Graphtech Myplot II).

Printer Mode

In this mode the HI-80 behaves as though it were a printer. All characters are drawn using movements of the pen. Many variations are possible in order to print text using various typefaces and styles. The HI-80 can be switched from either plotter mode to printer mode and back with software control.The commands available in the printer mode control the pen color, character style, character size, margin formats, line spacing, tabs, form feed etc. The command syntax is

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different from that used in the plotter modes. For example, the syntax to select a character set is as follows: "ESC + R + n". To set the character width is as follows: "GS + W + n1 + n2".

Command Documentation

All but a few commands use parameter specifications in addition to the command letters as shown above. The syntax for each command is furnished in the manual along with a brief description of any options or variables that may apply. Most commands also have an example of the syntax in use. The ones that do not have an example seem also to be the ones with a vague description, which can cause much consternation when one is trying to figure out exactly how to use the command. The manual is good, but just a little more attention to detail in certain areas would have made it easier to learn some of the commands.

Program Control

The HI-80 can be controlled by software in several different ways: user created programs, CP/M screen dump, or various commercial graphics programs. User created programs are probably the most versatile, enjoyable, and at the same time, most painful way to use the plotter. Programs can be pure ASCII text files created with a text editor, or they can be created in the form of a BASIC program. An ASCII text program can be created faster, but a BASIC program is more powerful because of the functions of BASIC such as FOR-NEXT loops, IF-THEN statements etc.

Users with the CP/M B2.25 operating system can do screen dumps of any CP/M screen, such as screens from within PeachCalc and Mailing List Manager. Output from these programs is not suitable to the plotter however.

Commercial programs such as QPLOTTER and QXDRAW can be used directly with the HI-80. You must have QPLOTTER Version 2.4 or later. For QXDRAW you must have the new plotter driver module. QPLOTTER seems to be superior to QXDRAW when used with a plotter.

KeyChart (SoftKey Software Products, Inc.), is one of those great programs that comes along once in a while. It is a dream come true for people who need to make charts and graphs from data. The user furnishes the raw data, selects the type of graph, and makes a few decisions as to legends, labels, colors etc., and the program does all the rest. Data can be input from a spreadsheet or manually. Since this is not a review of software, all I will say in addition, is that for making beautiful hard copy charts and graphs of numeric data, KeyChart is the way to go.

Graphs can also be generated directly from spreadsheet programs such as Supercalc or Visicalc. The manual shows how to do this and the procedure is somewhat involved.

General Comments

The HI-80 can draw almost any imaginable design on paper or over - head - projection transparency material. It comes with four colored aqueous ink, fiber tip, drawing pens: black, red, blue and green. There are three types of drawing pens available: aqueous ink ball point pens for fine lines on paper, aqueous ink fiber tip pens for heavy lines on paper, oil-based ink fiber tip pens for drawing on transparency and mylar drafting film materials. Each pen type is available in ten different colors: black, red, green, blue, cyan, magenta, yellow, orange, violet and brown. When drawing on paper, pen life and drawing quality are both

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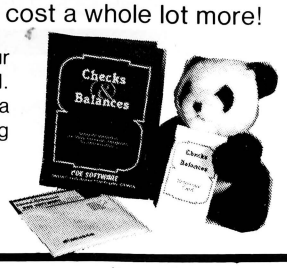

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VALDOCS 2.0

(GOT YOUR ATTENTION DIDN'T I)

THE BAD NEWS IS THAT AS I COMPOSE THIS AD IT IS DOWN TO THE LAST FEW DAYS IN APRIL AND WE STILL DO NOT HAVE THE LONG AWAITED VALDOCS 2.0 EVEN THOUGH IT IS SUPPOSED TO BE OUT AT ANY TIME NOW. IF IT IS OUT BY THE TIME YOU READ THIS AD THEN WE WILL ALL KNOW WHAT WE ARE TALKING ABOUT. AS IT IS RIGHT NOW, NOBODY KNOWS ANYTHING FOR SURE.

THE GOOD NEWS IS THAT LITTLE BITS OF INFORMATION HAVE LEAKED THROUGH "THE GRAPEVINE" AND HAVE PROVIDED US WITH LONG AWAITED DETAILS ABOUT VALDOCS 2.0. OUR CONTACT AT EPSON AMERICA HAS ASSURED US THAT E-ZIP WILL STILL BE A VERY VALUABLE PROGRAM WHEN WE FINALLY DO GET VALDOCS 2.0. THINGS SUCH AS DOT GRAPHICS, FINE PRINT, FOOTNOTE AND OTHERS ARE STILL NOT POSSIBLE, DIRECTLY IN A VALDOCS DOCUMENT. HE ALSO ASSURES US THAT OUR PROGRAMMERS WILL HAVE NO TROUBLE ADAPTING E-ZIP TO THE CHANGES IN THE WAY THAT VALDOCS 2.0 HANDLES PRINTER CONTROL. USERS OF OUR PROGRAM TELL US THAT THE ABILITY TO INSERT DOT GRAPHICS AND DIRECT PRINTER CODES, IS WORTH THE PRICE OF THE PROGRAM.

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greatly enhanced by the use of a hard, sealed paper such as Vellum paper. Ordinary paper such as typing paper or printer paper is too porous and has surface dust which soaks lots of ink from the pens and also causes the pens to collect lint around the tips. The result is that the drawn lines become even fuzzier than the paper alone is responsible for. The HI-80 is a four pen plotter that automatically changes pen color under program control. Programs can also instruct the plotter to cap the pens when the drawing is done, to prevent the ink from drying out when not in use. The four pens are held in a removable cartridge which can easily be removed to change to other pen colors. For convenience, extra cartridges can be purchased and each one loaded with a different color.

The plotter handles paper up to 8-1/2 X 11 inches or standard letter size. It can also be set to use A4 or B5 paper sizes, which are slightly smaller. Because of the large range of the coordinate system used, drawings can be made many times larger than the paper size, each sheet being but a "window" of the entire drawing. Drawings can be reduced from their original size and placed at any location on the paper. The HI-80 is capable of high accuracy; it can position a pen anywhere on the paper in increments of 1/10th of a millimeter (.004 inch) and draws up to 9 inches per second on straight lines. Drawing speed is somewhat slower on curved lines, this is especially pronounced when reductions are being made.

Extra Cost Options

Memory options for the HI-80 include 8K RAM, which can be used as an input buffer or to store a series of custom designed text or graphics characters. These can be used in Plotter Mode 0 or in the Printer Mode. There is also a ROM which allows the HI-80 to emulate the Hewlett Packard, GL series, plotters.

Summary

The manual could be a little more specific in certain areas, as mentioned earlier. The pen life seems to be pretty short, especially the fiber pens in view of their $2.00 each price. The pens also seem to feed less ink as the drawing progresses than they do at the start of a drawing. Other than these few relatively minor complaints, which aren't the fault of the unit itself, the Epson HI-80 Plotter is an impressive unit. It is capable of high quality work and it's price is certainly within reach of a multitude of users. ■

```
10 REM A sample Basic program for Epson HI-80 Plotter
20 REM (draws a picture of a floppy disk)
30 REM
40 REM DRAW OUTLINE
50 LPRINT "MA 100,100":LPRINT "DA 100,1400,1400,1400"
60 LPRINT "DA 1400,1120,1360,1120,1360,1050,1400,1050"
70 LPRINT "DA 1400,100,900,100":LPRINT "CR 15,0,1800"
80 LPRINT "DA 630,100":LPRINT "CR 15,0,1800"
90 LPRINT "DA 100,100":LPRINT "CA 750,750,200,0,3600"
100 REM CHANGE PENS AND DRAW CIRCLES AT CENTER
110 LPRINT "SP2":LPRINT "CA 750,750,150,0,3600"
120 LPRINT "CA 750,750,120,0,3600":LPRINT "SP1"
130 LPRINT "CA 1025,700,30,0,3600"
140 REM DRAW READ/WRITE HEAD OPENING
150 LPRINT "MA 810,425":LPRINT "DA 810,200"
160 LPRINT "CR 60,3600,1800":LPRINT "DA 690,425"
170 LPRINT "CR 60,1800,0":LPRINT "MA 200,1300"
180 REM CHANGE PENS, PRINT LABEL & CAP PENS
190 LPRINT "SP3"
200 LPRINT "LA5-1/4 Inch Floppy Diskette":LPRINT "HO"
```


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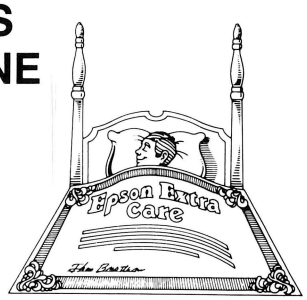

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Rx for PX

by Bob Hermann

Portable WordStar to Valdocs

Portable WordStar files cannot be loaded directly into Valdocs because of the boundary flags (high eighth bits) present. A public domain program called VALSTR.COM will strip all the boundary flags (and remove any dot commands) allowing conversion of Portable WordStar files for use with Valdocs.

If you want to be able to transform files the opposite way - from Valdocs to Portable WordStar-use the ASC.COM program to remove all the control codes from the Valdocs file. Then reformat the file with a program called SAS.COM. If you have down loaded files and found it necessary to remove manually the carriage returns at the end of each line, use SAS.COM to automate this procedure.

Generic QXFILINK

A public domain, generic version of QXFILINK has been produced by Jim Dorsey of Community Business Systems. Called EPYLN2.COM, it is set up for the KayPro, and contains conditional assembly code routines for the Dynabyte, Osborne, and DEC Computers. The source code and documentation may be obtained from the EpsonConnection by sending a check for $10.00 to the Disk/Tape Service Department. Indicate that you desire EPYLN2.COM and for which system the disk should be formatted.

Microcassette Drive Capacity

A 30 minute microcassette tape (15 min. per side) will hold approximately 29K on one side. The actual amount will vary, depending on several factors. Since the STOP mode puts some blank space on the tape between each 256 byte block, it s use will decrease tape capacity. Also, the number of files contained on the tape significantly influences it s capacity, because of the file header the PX uses. Thus you may be able to squeeze one 32K file on a tape, but find it impossible to get four or five files that total 26 or 27K on another.

MEX for PX

The Modem Executive Program (MEX) has been transmogrified for use on the PX-8 by David Kozinn. For those not familiar with this public domain program, it is considered the 'Cadillac' of communication programs (See the PX-8 Communications Program Comparison chart in EC July, 1985, for details). This will be on a future tape of the month.

TERM

The following edited discussion of TERM is taken with permission from Terrance Ronson's Epson User International Newsletter. It was written by Paul Mullen, of Seven Oaks Business Systems, producers of several fine products for the PX-8.

> If you have used TERM to communicate over a telephone line, or even, in some instances, direct to a mainframe computer you may have come across a serious problem with it. This is that every now and then it is liable to shout "Communication Error" at you and then go and sulk until you restart it. This happens every time it gets a bad character, which is often caused by crackles on a telephone line for example. On some telephone lines I have been using lately this can be very frequent, especially with 1200 baud, full-duplex modems using the V22 (alias Bell 212) protocol. It can even happen while you're using an acoustic coupler when you put the receiver into the cups.
>
> If the non-technical will excuse us, I will explain for those interested what happens. Each time TERM receives a character it checks the RS232 error status flags. These are described in a manual called "PX-8 Systems Essentials". TERM ignores the DSR status (data set ready), and the DCD (data carrier detect), as not all pieces of equipment will use these RS232 lines, but checks all the other error conditions mentioned. These are "Framing Error" (i.e., incorrect stop bits usually because it mistook a crackle on the line for the start bit), Receive Overrun (most unlikely, but occurs when the interrupt driven RS232 routines fail for some reason to pick up a received character before the next one is received), "Parity Error" (again due to line noise usually, but certain mainframe computers deliberately omit the parity bit on certain control characters), or "Receive Buffer Overflow" (i.e., TERM has been too slow in taking characters out of the BIOS receive buffer).
>
> Now usually when a teletype terminal gets a bad character it prints a space, or perhaps a blob, or often just outputs what it thinks the character looked like anyway. In any event, it carries on, giving the rest of the received message. Not TERM though. Presumably, embarrassed by the QX-10 TERM which, if connected with the wrong baud rate or other parameters, just carried on printing gibberish, Epson made the PX-8 TERM object to each such error and then give up so that it then loses any following characters. Fortunately to get around this problem all we have to do is to alter the one instruction in which TERM selects which bits it is to test. This is done after calling the RSIOX ERRSTS function by a "AND

74H" instruction. Since 74H is 0111 0100 binary it selects only bits 6,5,4 and 2. To select some other combination of bits you can change the 74H to another value. In particular, to ignore all the error indicators, you can set it to zero. If, on the other hand, you do want it to say, for example, "communication error" when it gets a framing error, you could use a mask of 40H (01000000 binary), which would just pick up the framing error warning on bit 6. A patch which would substitute some error character (such as the square blob produced by GRPH and J), is a little complex to explain here, but the following small change will suppress all communication error messages as a "dumb" teletype terminal does. Simply set the byte as address 02A8H in the program, which at present is 74H, to 0. If you have access to DDT (the CP/M assembly language debugger package, which if you do not know, is similar in its operation to the HX-20 Monitor) the change is simple. First type DDT C:TERM.COM <CR>, then SO2A8<CR>; the program will show the value 74, to which you reply 0<CR> then .<CR>. Then press the STOP key and back at the CP/M prompt type SAVE 12 TERM.COM. Many of you will not be able to use DDT. Even if you can borrow a copy from some other CP/M system you will have a problem getting it onto your PX-8 unless you have a FILINK compatible file-transfer program on your other computer. I found that using TERM's file transfer on binary files chopped off the end and using PIP inserted extra nulls which were hard to track down in the binary file. At one stage we had to resort to typing in, by hand, from a hex dump, the CP/M LOAD program. That was why SSBS came so quickly to write its PXLINK file transfer program which enables you to use FILINK to other computers. Now files just zip to and fro, almost as simply as using PIP to copy from tape to RAM. Anyway, here below is a development of the program that I used to type in that LOAD.COM. You can use it either to make a small patch to an existing program or to type in the hex code of a complete assemble program. I stress that it is NOT completely proofed against user errors and certainly is not burdened down with the kind of input value checking that our commercial software would use but it should do the job.

Those who only want to know how to cure the problem may skip the rest of this paragraph and the following one. There follow a few notes on how the program works. Firstly, CP/M .COM files are just standard files like any other but must obviously be treated as binary files (i.e., they don't have a CR and LF character at the end of each line and, more importantly the CTRL Z character which usually indicates the end of a text file may validly occur anywhere in the data). So you can read and write COM files using Microsoft BASIC's random access file commands (the only way of handling binary data in Microsoft BASIC). Just to recap, a binary file is a file in which where data is held in the form the computer holds it internally. For example, the number 255 could be held as just a single byte of memory with all its 8 bits set (255 is 11111111 in binary notation), but in text form it consists of the three ASCII characters "2", "5" and "5", each taking one byte, with a delimiter following (comma, CR, or space), and usually a space preceding. This, apart from the CPU time used in converting from one form to the other, is why most text files take three or more times as long to read from disk or tape as binary files and why they often need three or more times as much storage space to hold. BASIC programmers (and this applies to the HX-20 RAM file facility as well) will find it well worth their while getting familiar with the use of random files, complicated though it is at first.

Anyway, to return to the subject at hand, CP/M .COM files simply contain a copy of the machine code of the program exactly as it would be in the computer's memory, starting from the address 100H (the base of the TPA or "Transient Program Area" as CP/M calls the area of memory available for user

```
10 'PATCH.BAS program to patch >COM files on PX-8
20 '
30 DEF FNREC (X)=(X-&H100)/128+1 'record containing this byte
40 DEF FNBYTE(X)=(X MOD 128)+1 'and its position on record.
50 LINE INPUT "File to patch? ",F$
60 IF NOT INSTR(F$,".") THEN F$=F$+".COM"
70 OPEN "R",1,F$,128
80 FIELD#1,128,A$,REC$
90 '
100 LINE INPUT "START ADDRESS (IN HEX)?",X$
110 X=VAL("&H"+X$)
120 IF X <&H100 THEN PRINT CHR$(7): GOTO 100
130 LREC=FNREC(X)
140 GET #1,LREC
150 '
160 'REPEAT UNTIL X$="."
170 If FNREC(X)<>LREC THEN PUT#1, LREC:LREC=FNREC(X):GET#1,LREX
180 PRINT HEXS(X);TAB(7);"=";HEXS(ASC(MID$(REC$,FNBYTE(X),1)));
190 LINE INPUT "---> ",X$
200 IF X$="" THEN 240 'cr means Leave unaltered
210 If X$="." THEN 270
220 V=VAL("&H"+X$)
230 MID$(REC$,FNBYTE(X))=CHR$(V)
240 X=X+1
250 GOTO 160
260 'end repeat
270 '
280 PUT#1,Lrec
290 CLOSE
300 END
```

programs). The contents of the .COM file are always copied into memory starting from this address, thus the first byte of the file (byte 1 of the record 1) goes into 100H, the second byte into 101H and so on. Looking back at the program we see that it divides up the file into arbitrary chunks of 128 bytes (it could have been any size but since CP/M itself uses 128 byte chunks this is probably the most efficient size) and then reads and sets particular bytes in each 128 byte chunk.

The use of the ASC and CHR$ and other string functions needs comment. This is because ASCII characters are simply bytes of memory containing particular values as shown in an ASCII code chart (i.e., 65=A, 66=B and so on). Therefore, a string in BASIC simply consists of a pointer giving the start address and length of the area of memory that contains such a string of values. Although usually representing text, they need not be and Microsoft's FIELD statement makes the string variable point instead to part of all of the contents of the file buffer. COBOL programmers may recognize this as being similar to their DATA DEFINITION section. Individual parts of this buffer can equally be referred to by use of string functions such as MID$ in the normal way. Finally although Microsoft only has integer (2 bytes long) and floating (4 or 8 bytes long) variables, individual byte variables can be handled in Random Access files by use of the ASC and CHR$ functions. This is because, as I just pointed out, ASCII characters are just numeric values, each held in one byte. ASC takes that byte (pointed to by a string variable), while CHR$ takes an integer (or floating) variable and puts its value into a byte.

Once you have typed the above program in and SAVED it (use the Auto command such as B:BASIC PATCH. You can then type the filename (no need to add the .COM as this is assumed). Remember that it must be on RAM (or disk) and NOT on a ROM cartridge. Type the start address of the area to be changed in hexadecimal (only up to 8000H) and away you go. The program will display the present value unchanged, while pressing a full stop and then RETURN terminates the changes and saves the altered program. Beware! Invalid inputs may set the corresponding program byte to zero! So until you are familiar with using it I would suggest going through the same section of the file a second time checking that each value is correct and pressing carriage return. Using PATCH.BAS to create a patched version of TERM as suggested above should look something like this (assuming that your BASIC ROM is in slot B and utilities in C:):

```
A>C:PIP A:=C:TERM.COM
A>B:BASIC PATCH

File to patch? TERM
Start address (in hex)? 02A8
2A8 =74 ---> 0<CR>
2A9 =11 ---> .<CR>
Ok
SYSTEM
```

■

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Letters to the Portable Editor

Dear Editor,

I am a total newcomer to computers and have picked up a PX-8, which in spite of clear limitations has certain values. Obviously the lack of software raises severe problems in some ways: the issue of a Database ROM program would certainly be of value.

Is there an issue so far that does provide a listing of currently available software for the PX? How likely is it that CP/M programs or software might be issued or produced in the 3 1/2 inch floppy-disk format?

Father Winston F. Jensen

Father Jensen,

To answer your question concerning the availability and sources of software for the PX, let me say that the list of commercial software available or soon to be available for the PX is too long to present here. You will find a partial listing in our December 1984 issue, which contains a catalogue of software for all three Epson computers (the PX listings have since expanded considerably). Briefly, the current packages include: a wide variety of communications software, LOGO, at least three different databases, at least two spreadsheets, several different programming languages, a spelling checker, statistical and graphics programs, several personal and business finance programs, and some scheduler/time management packages. Some of these programs are available on microcassette tape, ROM, PF-10 floppy disk, or choice of ROM or disk. For specifics concerning the above mentioned software, consult our December 1984 Resource Guide. These programs are either currently on the market, or will be available shortly. In addition, Epson promises to release most of the existing popular CPM programs, configured for the PX-8 (a total, according to Epson, of over a 100 programs). For further information look at the new products section of each of our issues, contact your local Epson dealer, call the Epson hotline (1800-421-0184), or when your modem is functional, call Epsource (1-213-539-6765), EpsOnLine (on CompuServe), or the closest EpsonNet RBBS and inquire about software sources. Sources of public domain software for the PX include the EpsonNet RBBS system, EpsOnLine, the EpsonConnection's tape of the Month, and Epson User Groups.

Dear Portable Editor,

Concerning the PX-8: I own one of these computers and would like to order the cable by which I can transfer files created on the PX-8 to my Epson QX-10. I use both computers for word processing exclusively. The files created on the PX-8 are done with WordStar. My QX-10 files are created with Valdocs. Hence my question:

To what extent, if at all, will my WordStar files from the PX be usable with Valdocs on the QX-10? Will they be readable on the QX-10 screen? Can I edit them further with Valdocs? Will the WordStar codes embedded in the file print out unless first removed by Valdocs? If I have to buy a WordStar disk for my QX-10 to use files after transfer there, the whole thing becomes too expensive!

Jay Huges
St. Louis, MO

Jay,

The cable that you will need to connect the PX with the QX is the PX printer cable, namely the #725 Epson Cable. File transfer can be accomplished directly from the opening menu of WordStar on the PX, providing you have a copy of QXFILINK on the QX. First, use CONFIG on the PX and SETUP on the QX to make sure that communications protocols match EXACTLY. Use a baud rate of 9600 to complete the transfer. You may also use FILINK on the PX (the transfer from WordStar is accomplished with the same unique, Epson specific control codes). Attempts to use any program except QXFILINK on the QX will prove quite fruitless, as the two FILINK programs incorporate the Epson specific control codes referred to above. Unfortunately, QXFILINK has not been designated as a public domain program, but should be available from your Epson dealer (for a nominal amount).

Attempts to use FILINK or the transfer capability of Portable WordStar with ANY computer that does not have a program incorporating the above referred to control codes will be unsuccessful. Programs incorporating these control codes have been developed for the IBM, and, hopefully, versions for other machines will soon be available.

There are two public domain programs, WS2VAL and VAL2WS that do just what the titles suggest — convert WordStar files into Valdocs files and Vice Versa. They are slick programs created by Terry Ritter, a user in Texas.

Dear Bob,

I have two questions. First, what software applications are available now and will be available by Epson for the PX-8? Second, how can I communicate with other Epson Family members for ideas and software exchange?

Steve Eller
Plainsburo, NJ

Steve,

First of all, software applications currently available for the PX-8 are listed in the December 1984 issue of the EpsonConnection. Additions to this list include:

- *Several BASIC programs by Software Riches.*
- *The GENEVA CONNECTION, a communications program from Epson.*
- *PX-KEY, designed to facilitate function key definition.*
- *PX-100, a communications program containing the major features of VT-100 emulation.*
- *The above two programs, along with several specific bar code packages are offered by Cardinal Computers, Inc.*
- *Talbot Computers Ltd. has a version of INTEXT, a word processing-communications package.*

Programs for the PX-8 that are scheduled for future release include:

- *Traveling dBase*
- *Unison World Games*
- *dBase II*
- *Rags to Riches*
- *Teladex*
- *Traveling Software Package*
- *Games Package from Unicorn*
- *TELEMERGE (from Micropro)*

To help you with your second question, a list of user groups is also found in the December issue of the EpsonConnection. Those with a modem will find valuable information and assistance on the CompuServe Special Interest Group known as EpsonOnLine (go pcs-19).

***NOTE:** Several people have also inquired about disk drives for the HX-20. There are no known third party disk drives available. The TF-20 unit is now available from Epson distributors in certain areas of the country, or may be obtained from Interface Solutions in Memphis. Cost of the double drive unit is about $850.*

Portable Editor, Bob Hermann

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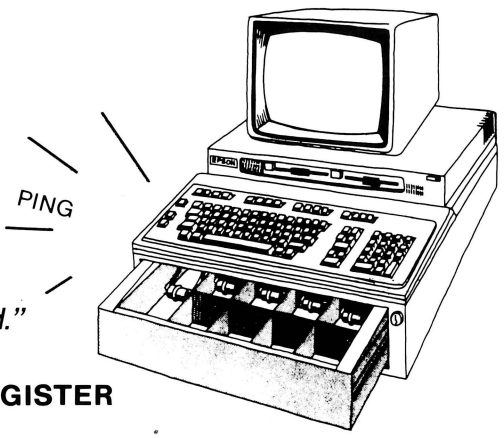

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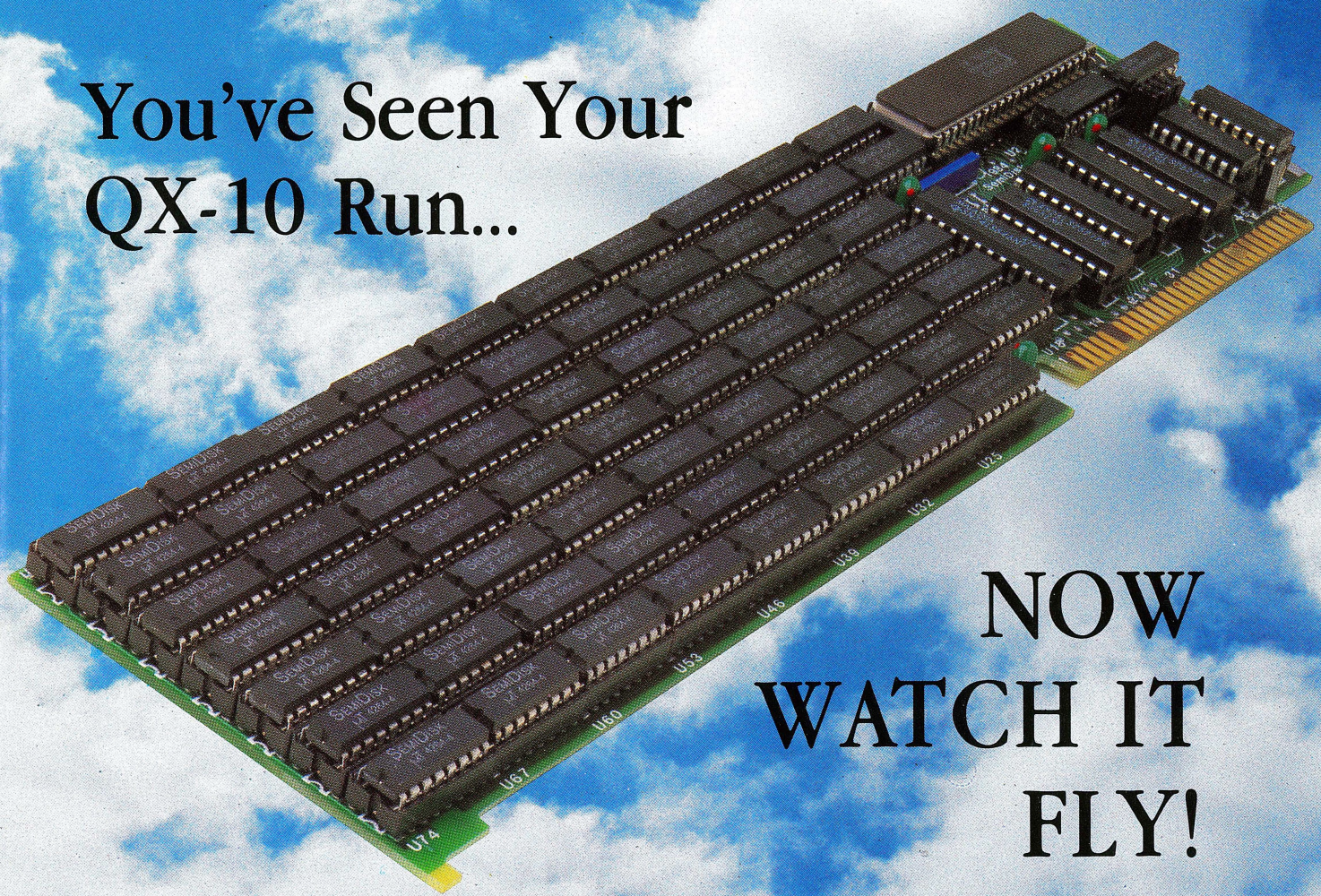

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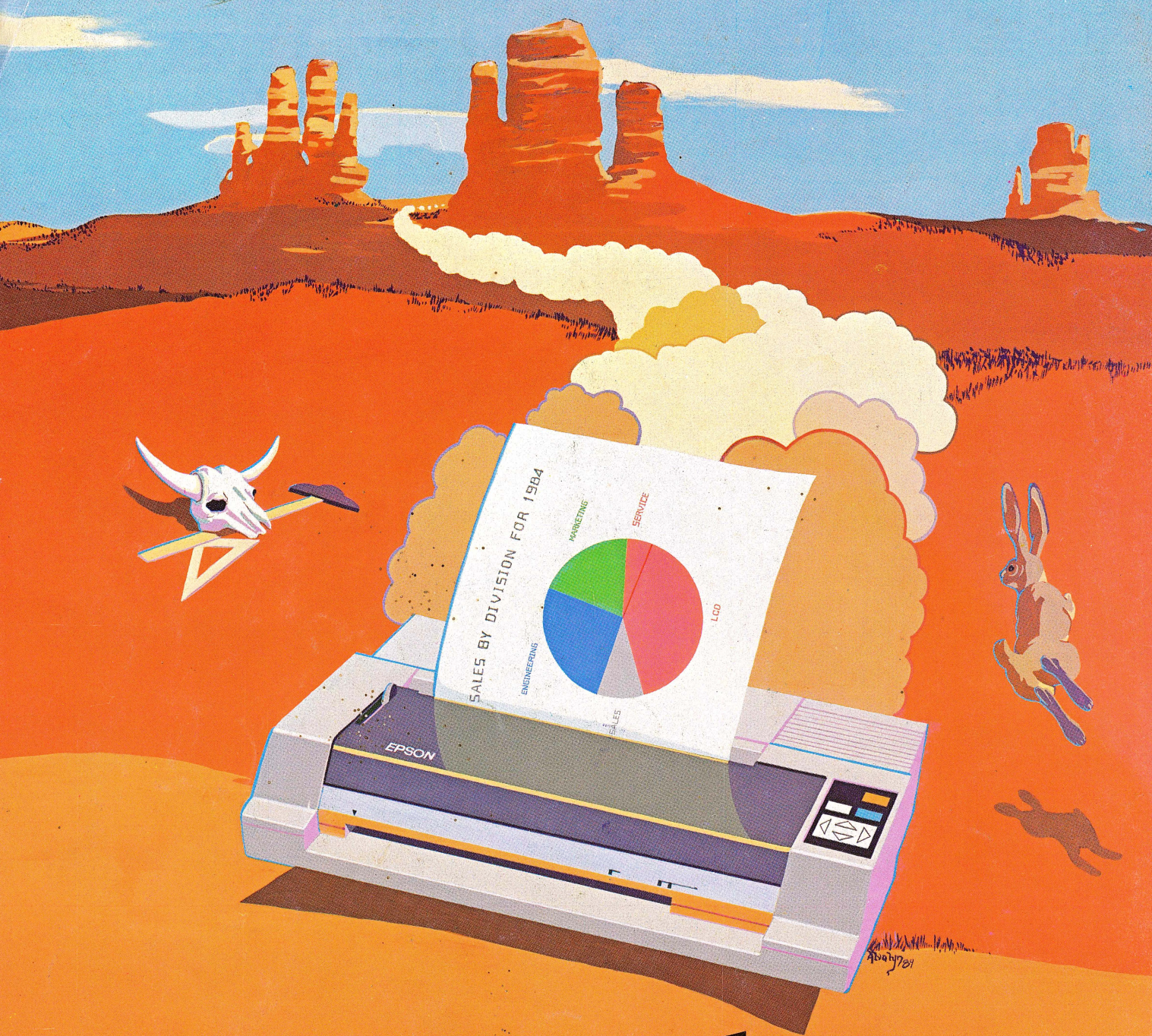

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